

# THINK BEYOND NUMBERS!

TELAAH SCIMAGOJR

Oleh:  
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Institut Teknologi Bandung,  
[RINarxiv](#)

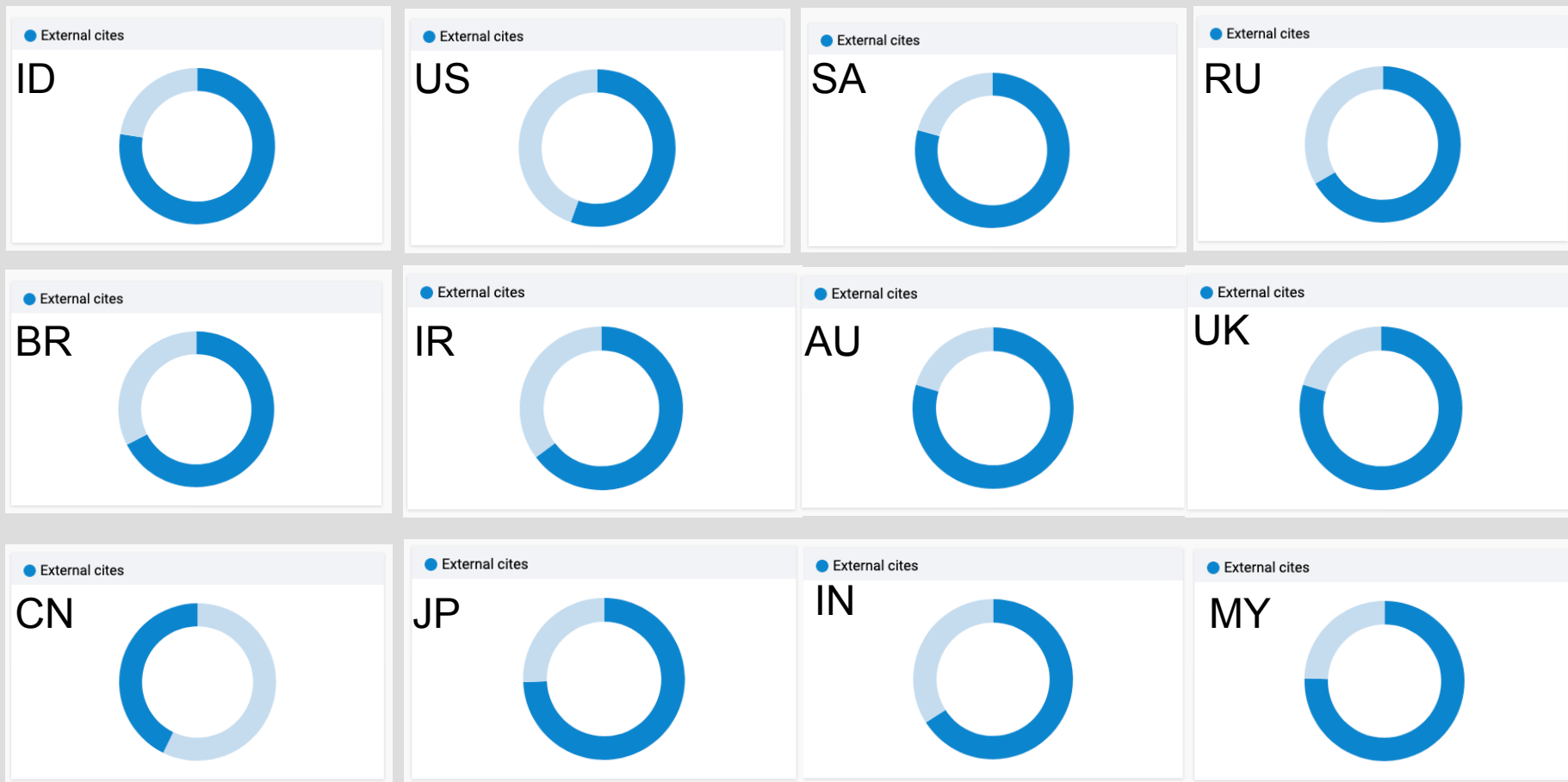


# Metode

- Scimagojr.com
- Menu “Viztools”
- Eksplorasi data

# Country graph

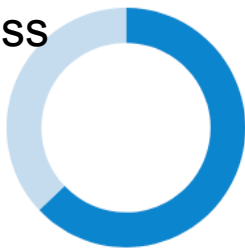
# Self vs external cites



Self vs  
external cites  
dari  
Indonesia  
pada  
berbagai  
kategori

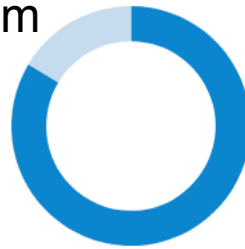
● External cites

Business



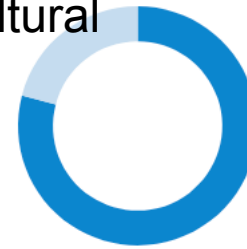
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Biochem



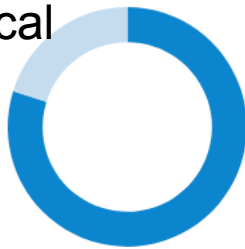
● External cites

Agricultural  
Bio  
Sci



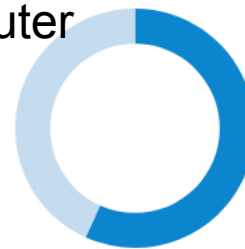
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Chemical  
Eng



● External cites

Computer  
Sci



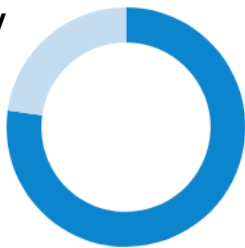
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Earth  
Planet  
Sci



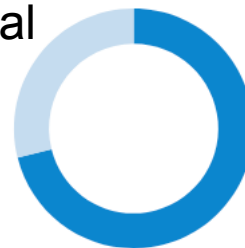
● External cites

Energy



● External cites

Material  
Sci

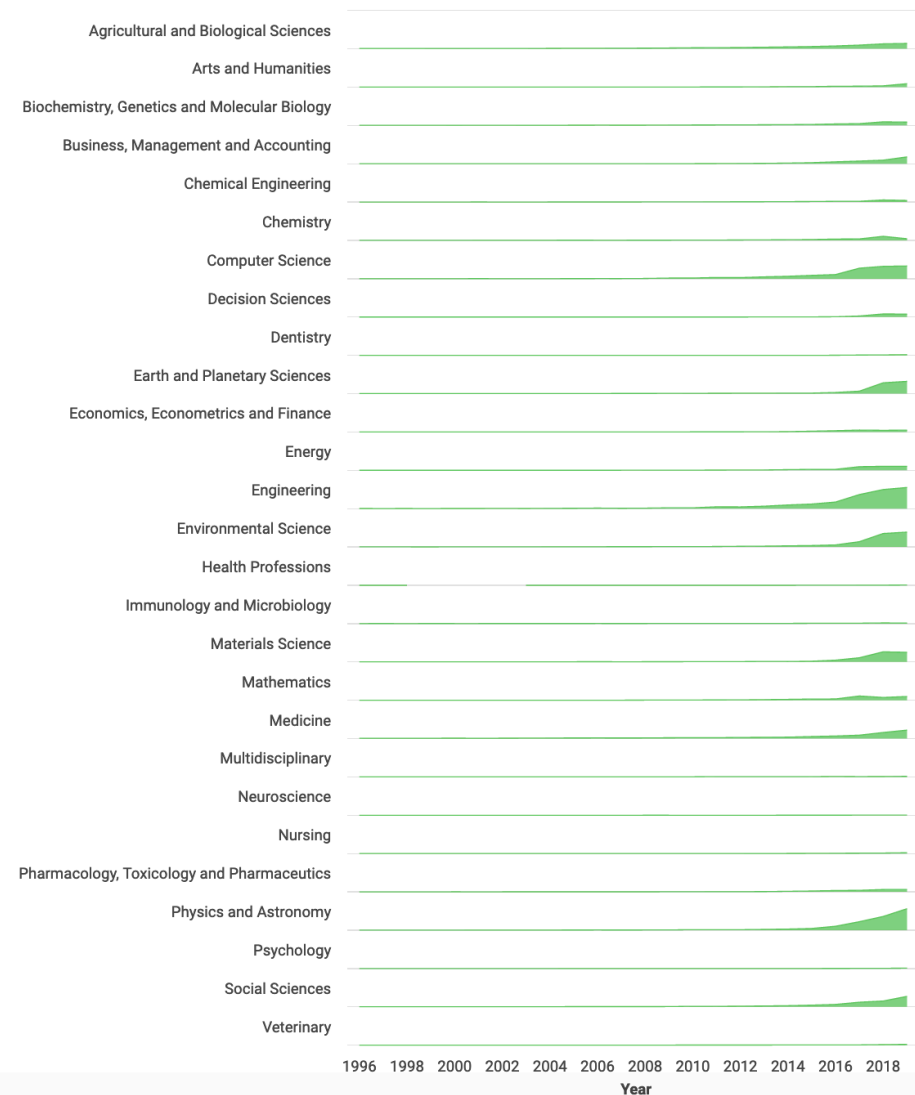


● External cites

Math



Documents by subject areas



# Docs by subject areas

Menunjukkan perkembangan jumlah docs per subject areas tahun 1996-2020

Ada yang berkembang sejak lama (seperti engineering, computer science)

Ada yang belakangan (seperti earth and planetary sciences, energy, physics and astronomy)

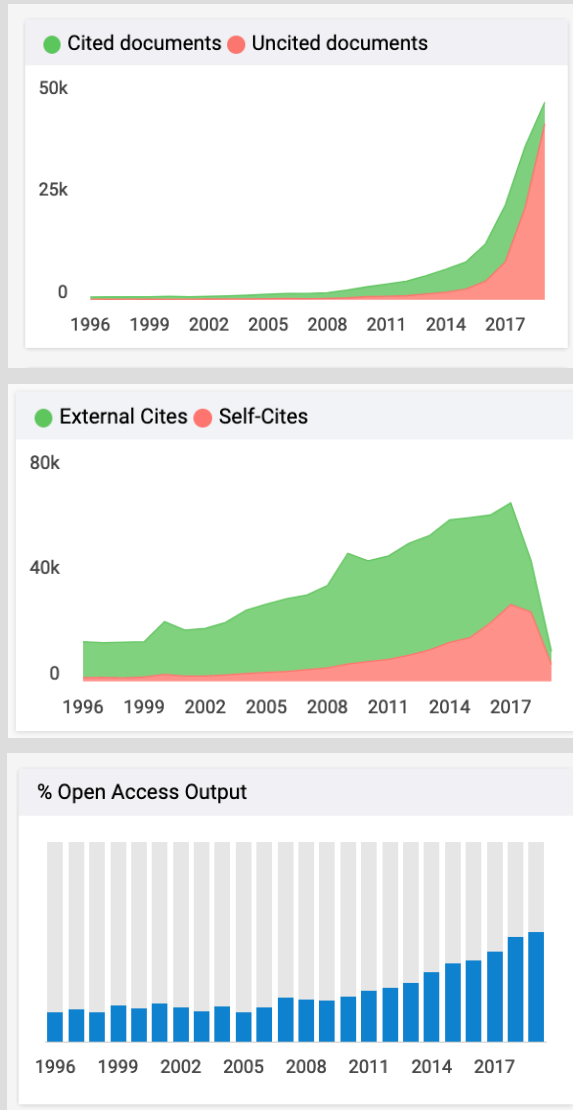
Banyak juga yang stagnan (seperti matematika, arts and humanities, agricultural biological sciences)

# Citations

Jumlah totalnya mengalami peningkatan yang ditandai dengan “tekuk lereng”/ *slope break* (istilah geomorfologi) pada tahun 2008 (1294), 2012 (3288), 2015 (6106), 2016 (8446).

Jumlah external cites dan selfcites meningkat secara proporsional dengan *spike* terjadi di tahun 2000, 2009 dan 2014. Penyebab?

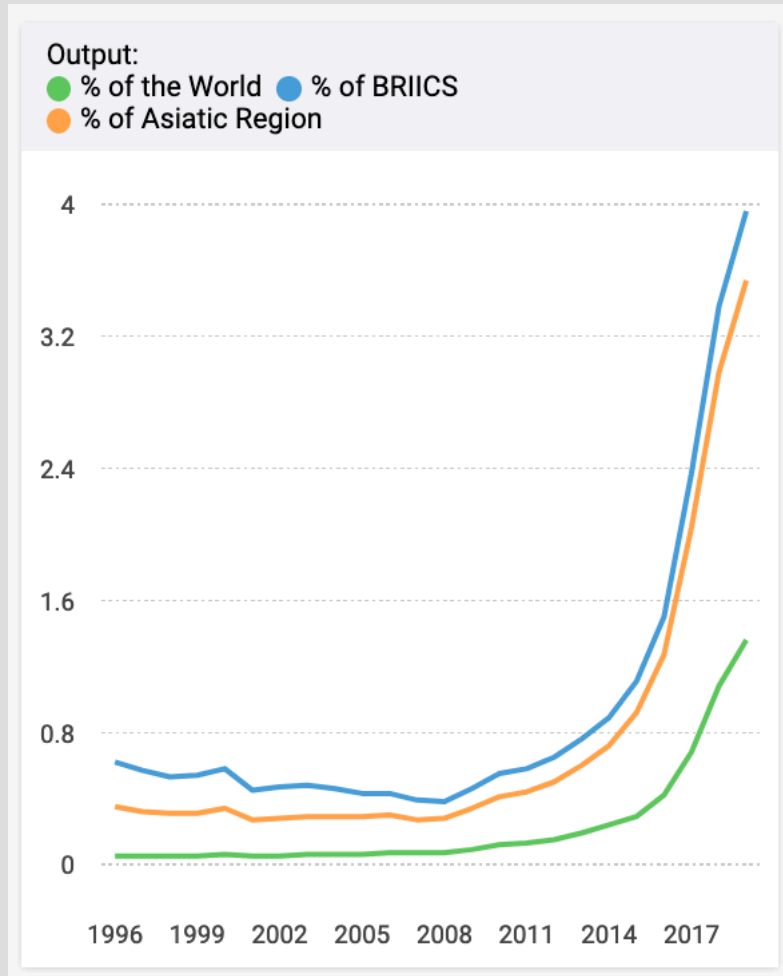
Peningkatan jumlah sitasi (sepertinya) berhubungan dengan peningkatan jumlah dokumen berjenis OA.



# Proporsi luaran

Pada tahun 2008 = 0,07% dunia dan 0,28% asiatic

Pada tahun 2019 = 1,36% dunia dan 3,54% asiatic





# % kolaborasi internasional



Menunjukkan % dokumen yang ditulis bersama dengan penulis dari negara lain.

Menurun. Penyebab?

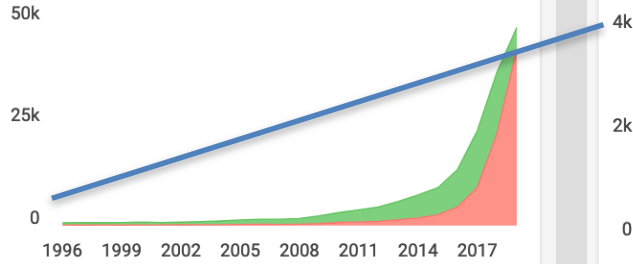
Sekarang kita bandingkan dengan kondisi  
pada beberapa subject area

Agricultural and biological sciences

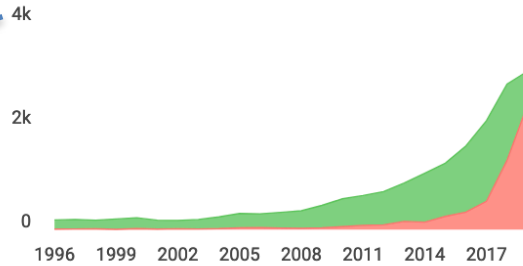


# Citations

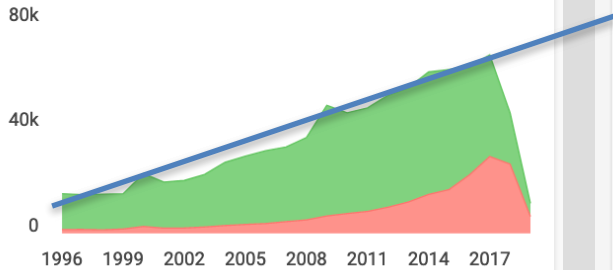
● Cited documents ● Uncited documents



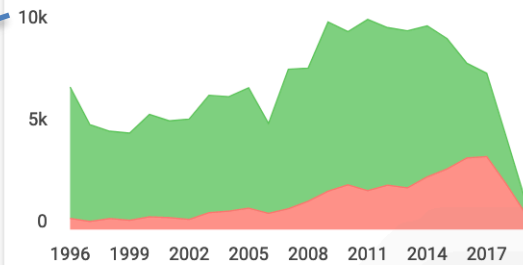
● Cited documents ● Uncited documents



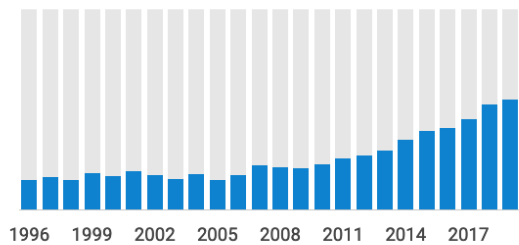
● External Cites ● Self-Cites



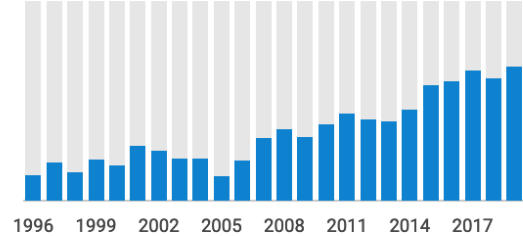
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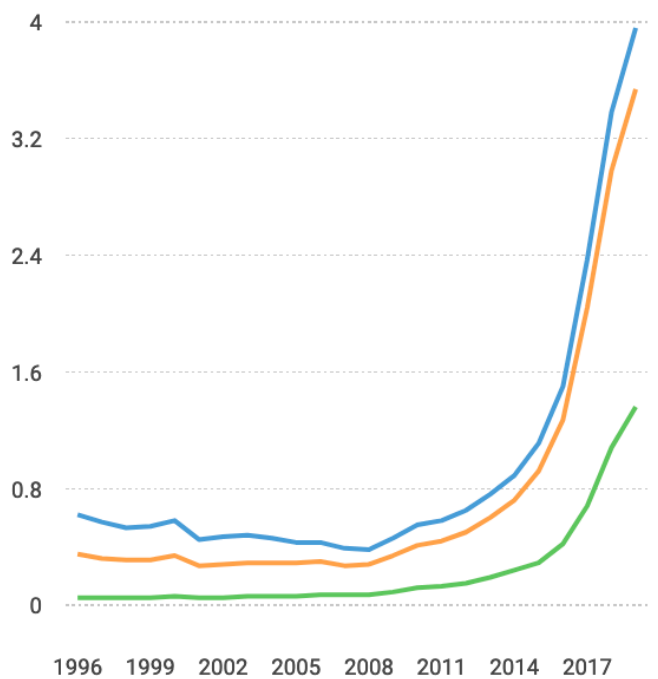
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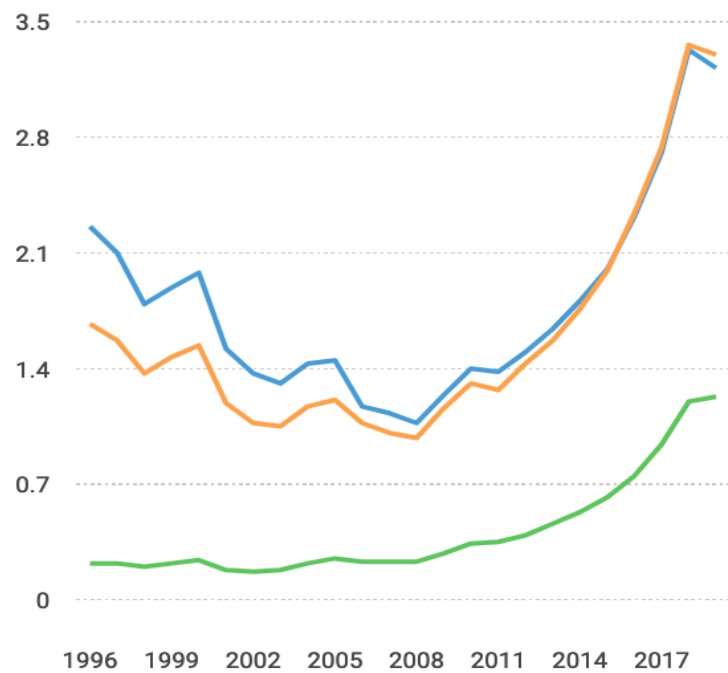
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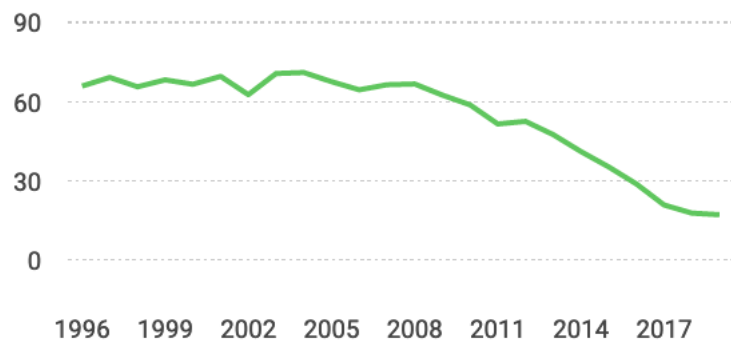
Output:  
● % of the World ● % of BRIICS  
● % of Asiatic Region



Output:  
● % of the World ● % of BRIICS  
● % of Asiatic Region



● % International Collaboration



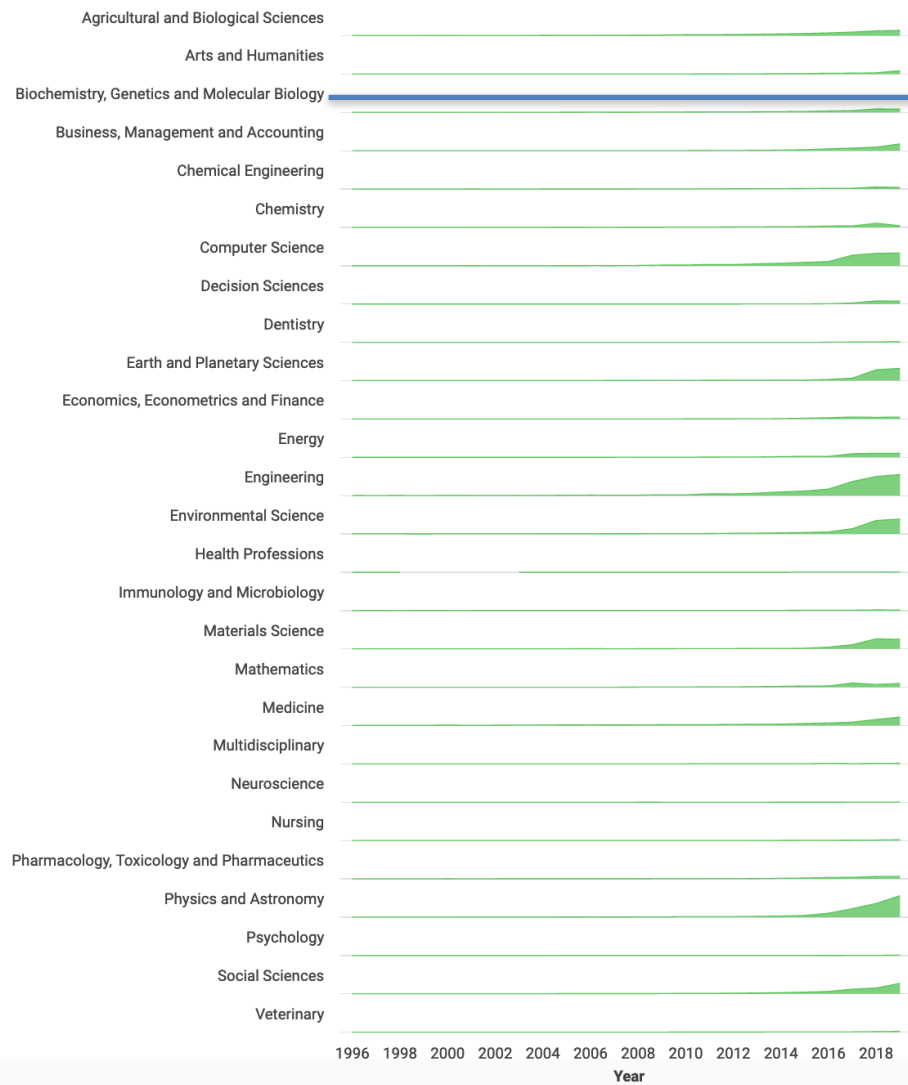
● % International Collaboration



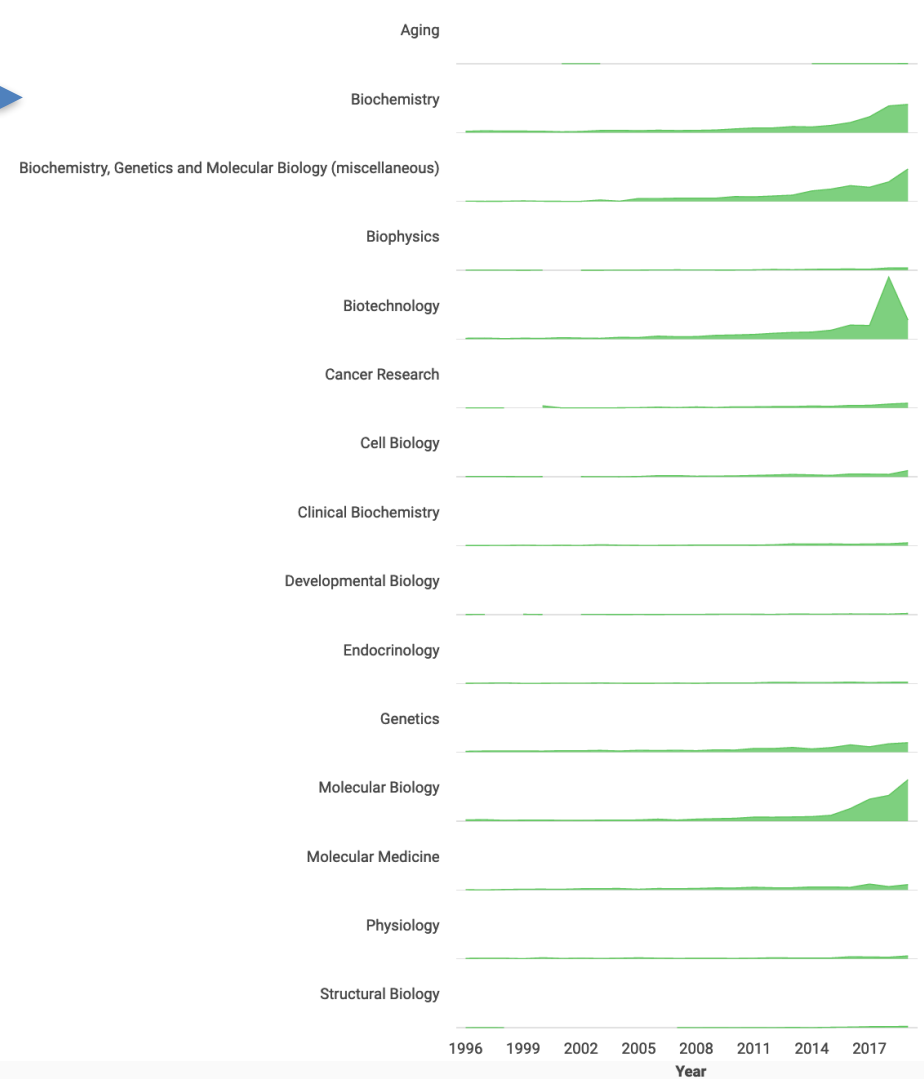
Biochemistry, genetics, and molecular biology



## Documents by subject areas

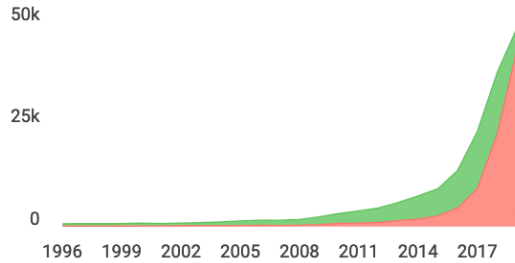


## Documents by subject categories

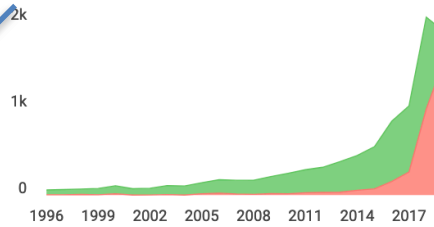


# Citations

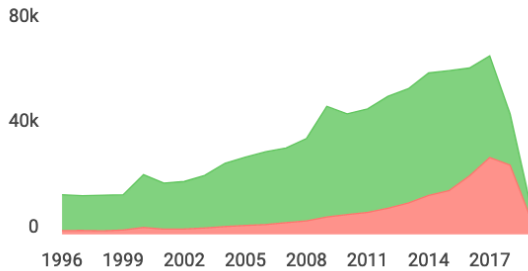
● Cited documents ● Uncited documents



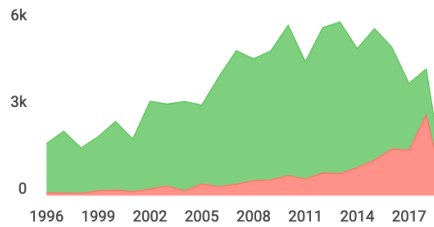
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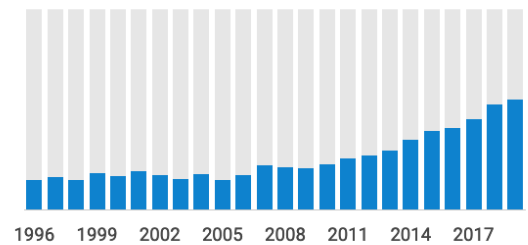
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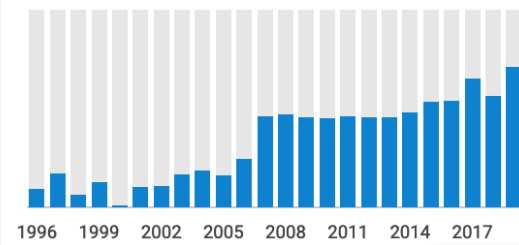
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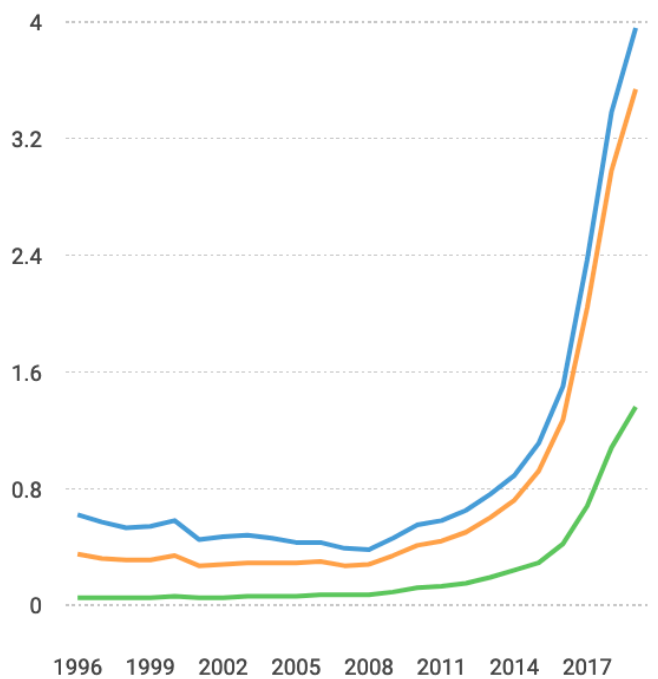
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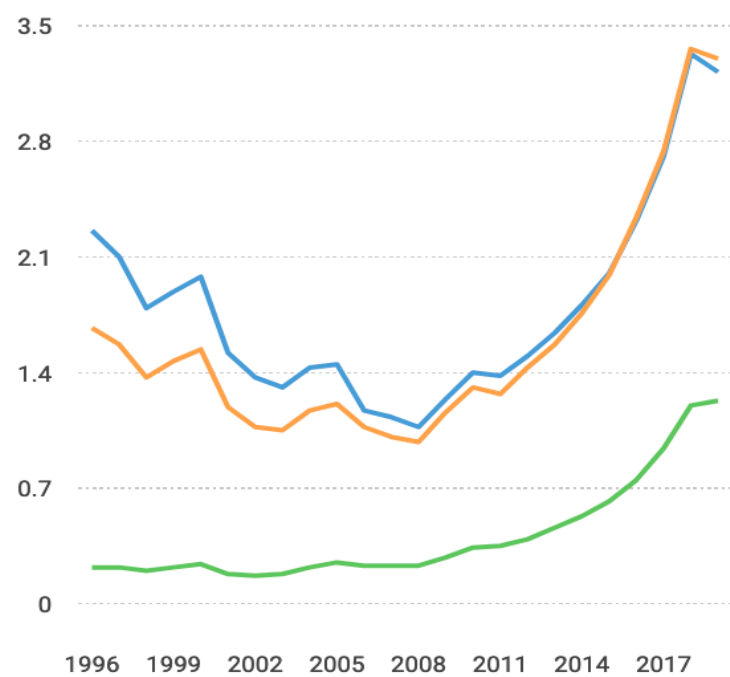
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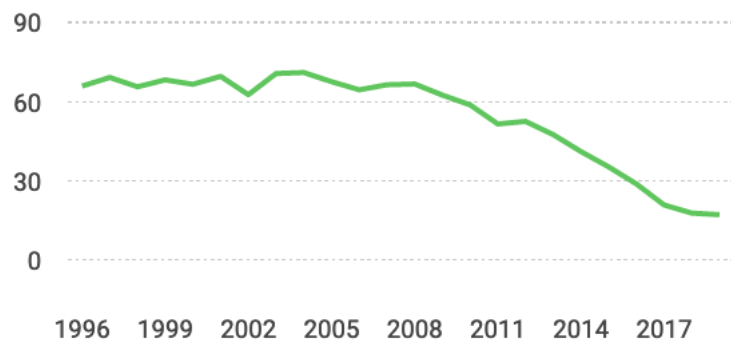
Output:  
● % of the World ● % of BRIICS  
● % of Asiatic Region



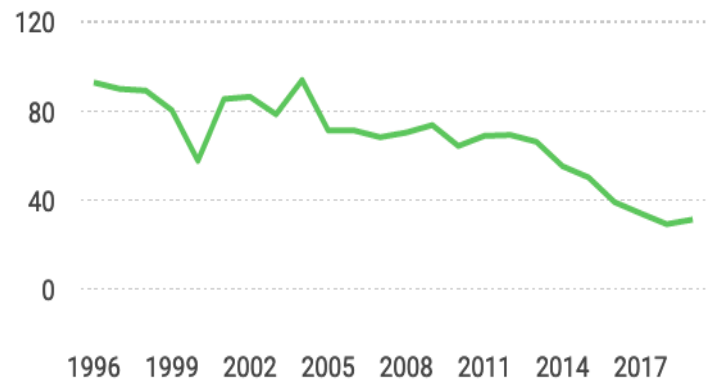
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● % of the World ● % of BRIICS  
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● % International Collaboration

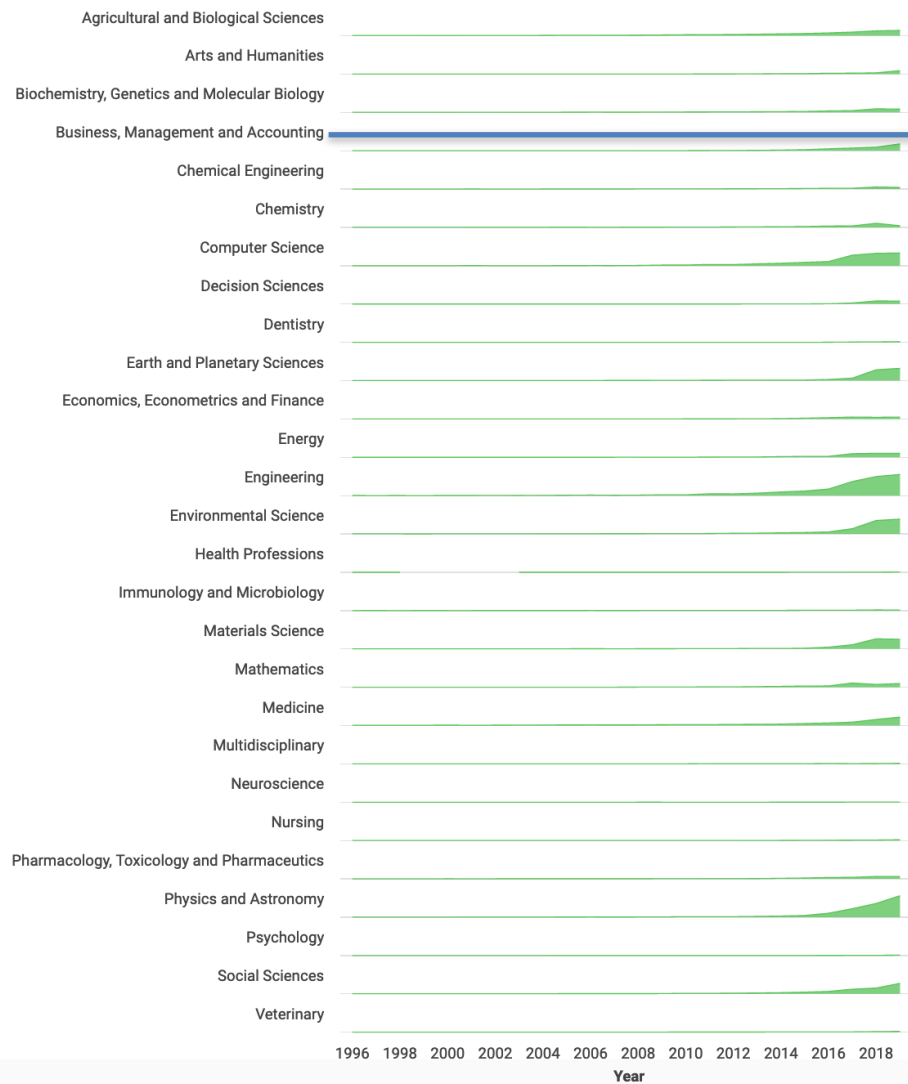


● % International Collaboration

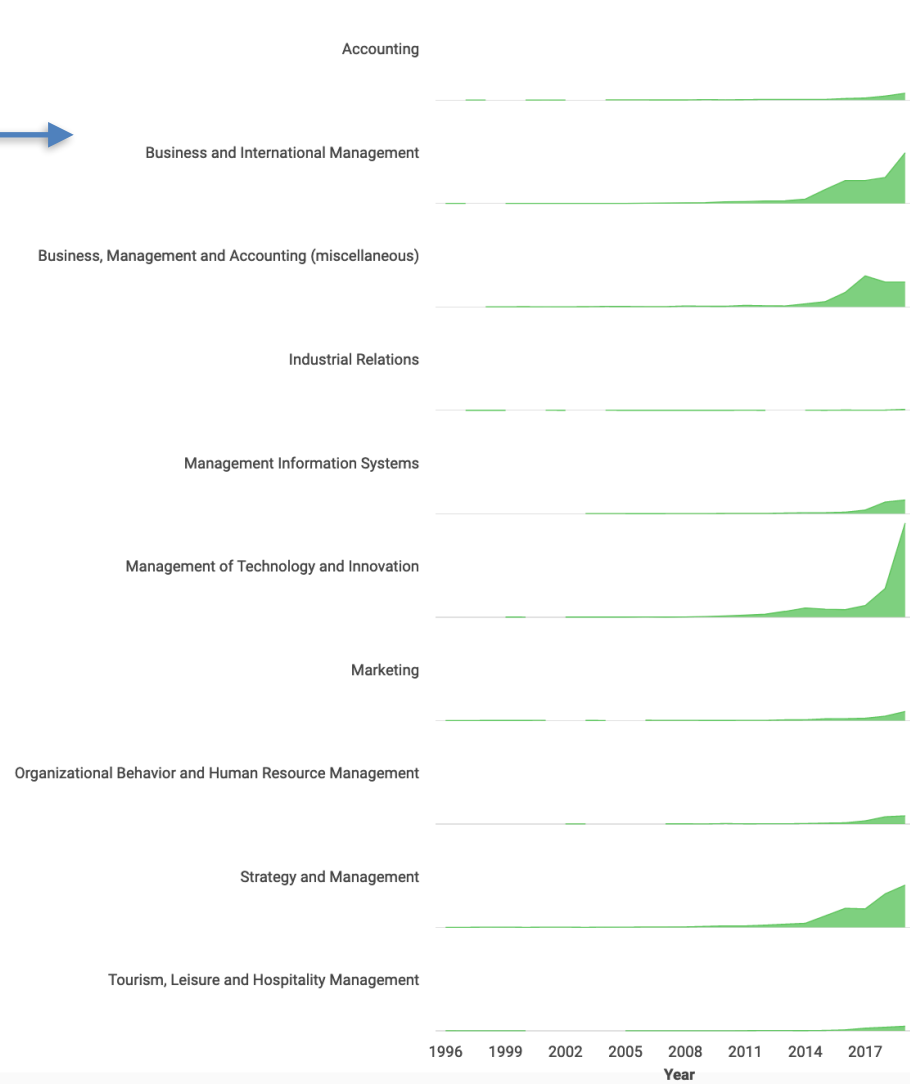


Business, management, accounting

## Documents by subject areas

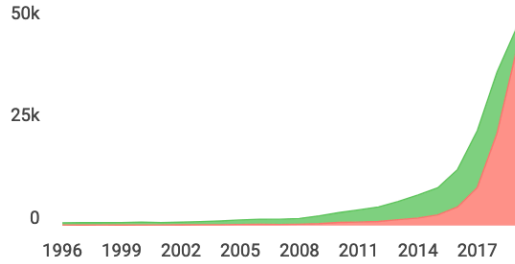


## Documents by subject categories

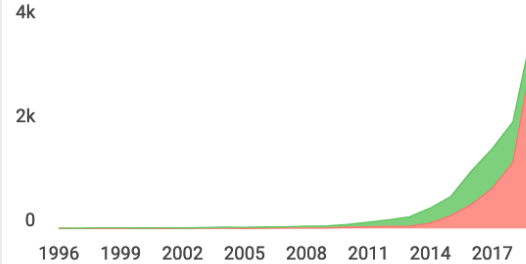


# Citations

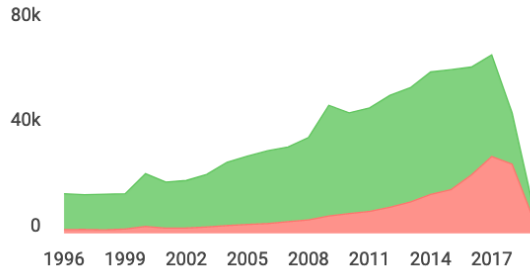
● Cited documents ● Uncited documents



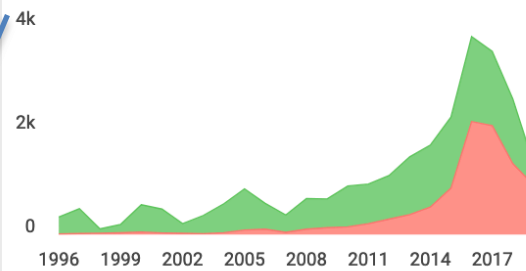
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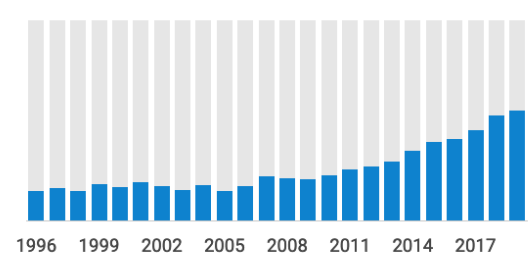
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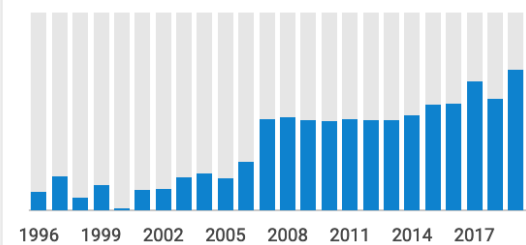
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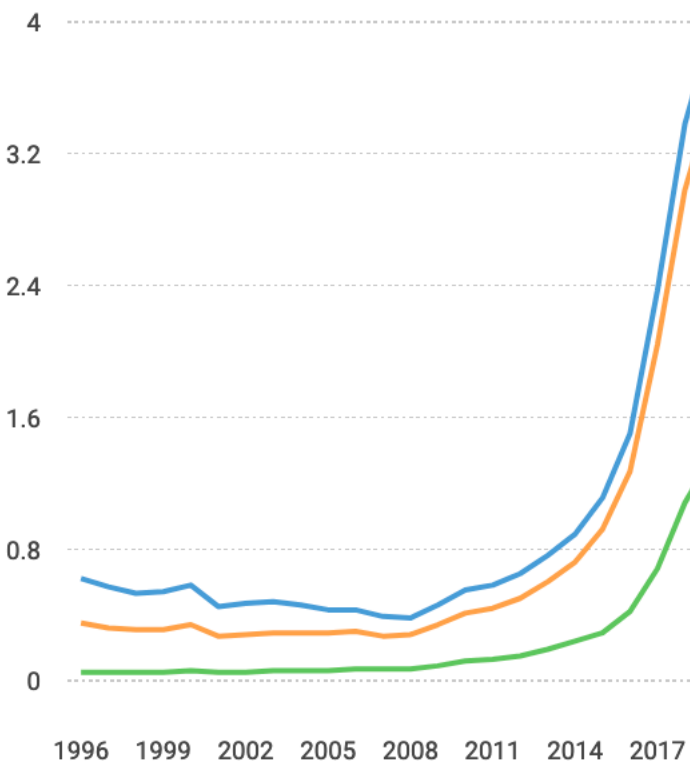


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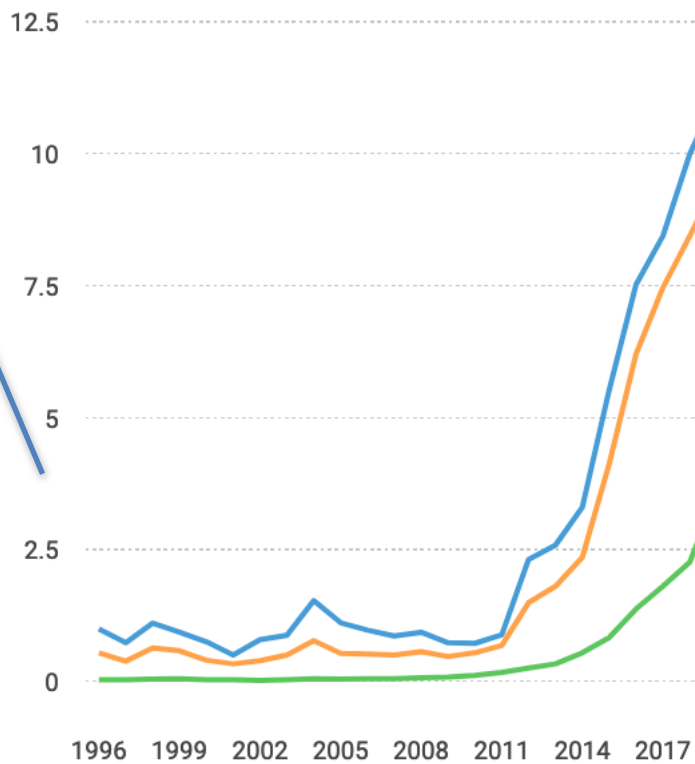
Output:

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● % of Asiatic Region



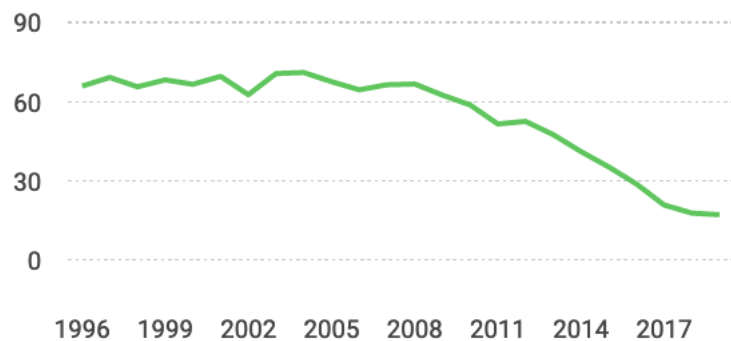
Output:

● % of the World ● % of BRIICS  
● % of Asiatic Region





● % International Collaboration

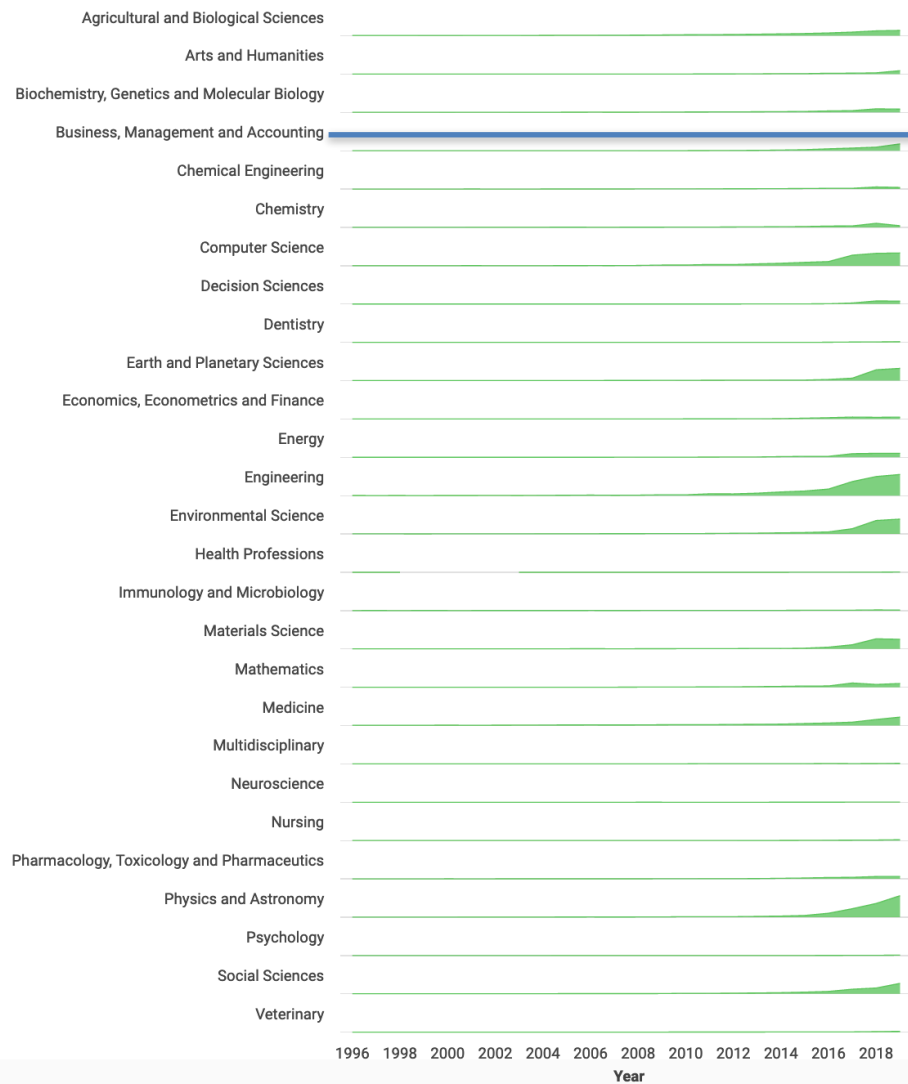


● % International Collaboration

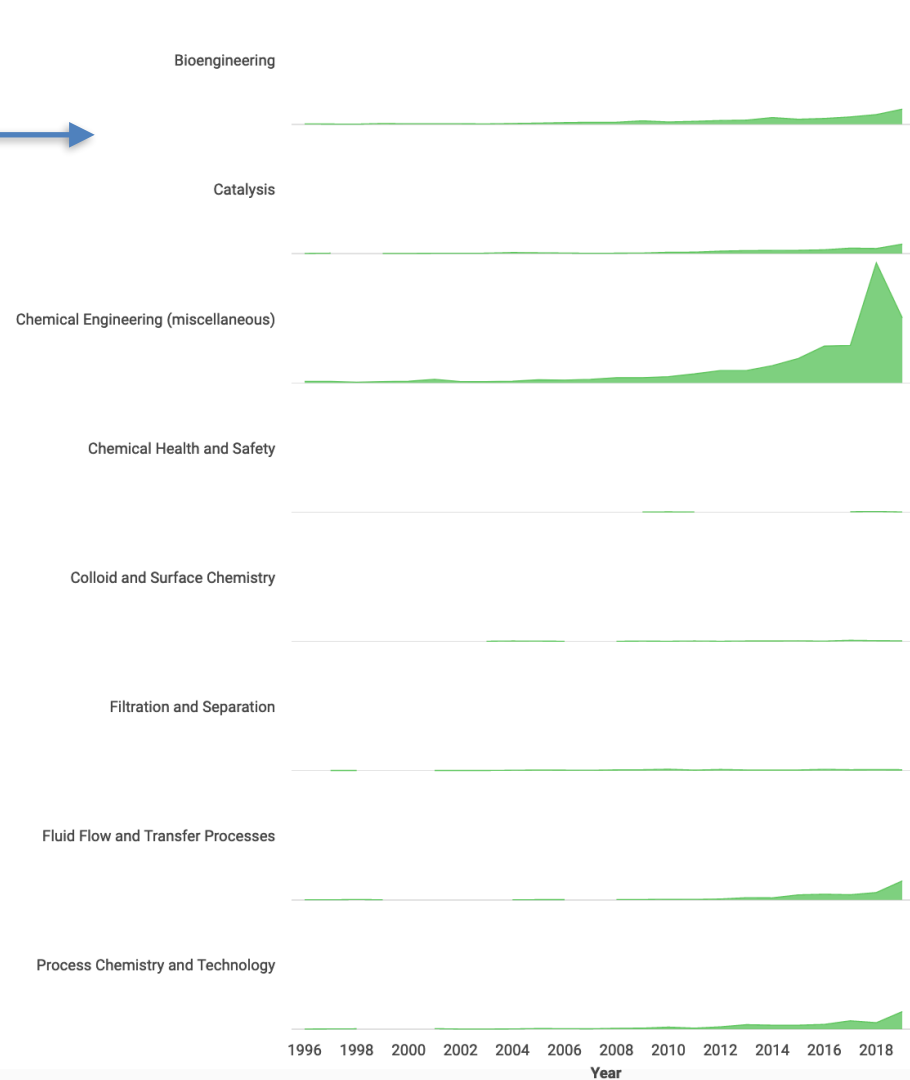


Chemical engineering

## Documents by subject areas

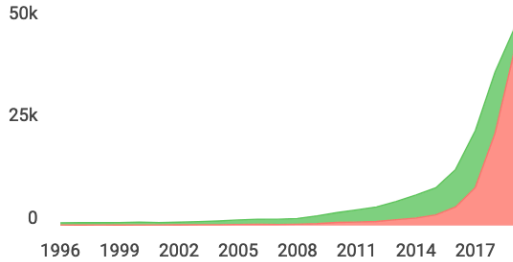


## Documents by subject categories

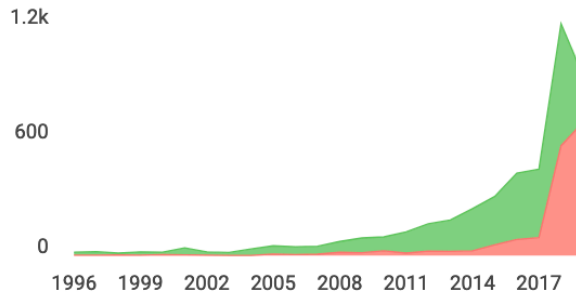


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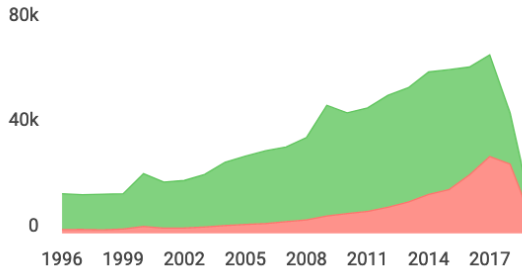
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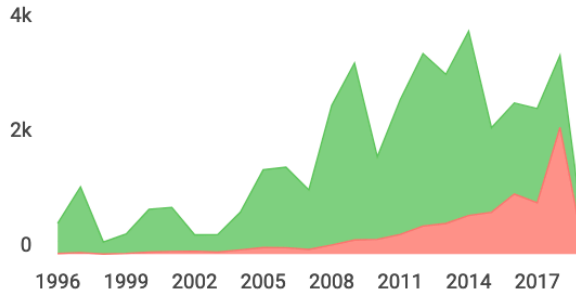
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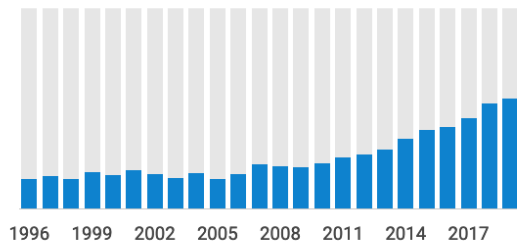
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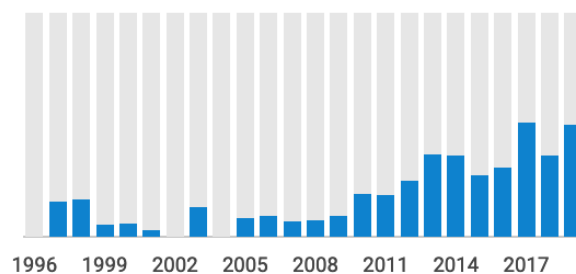
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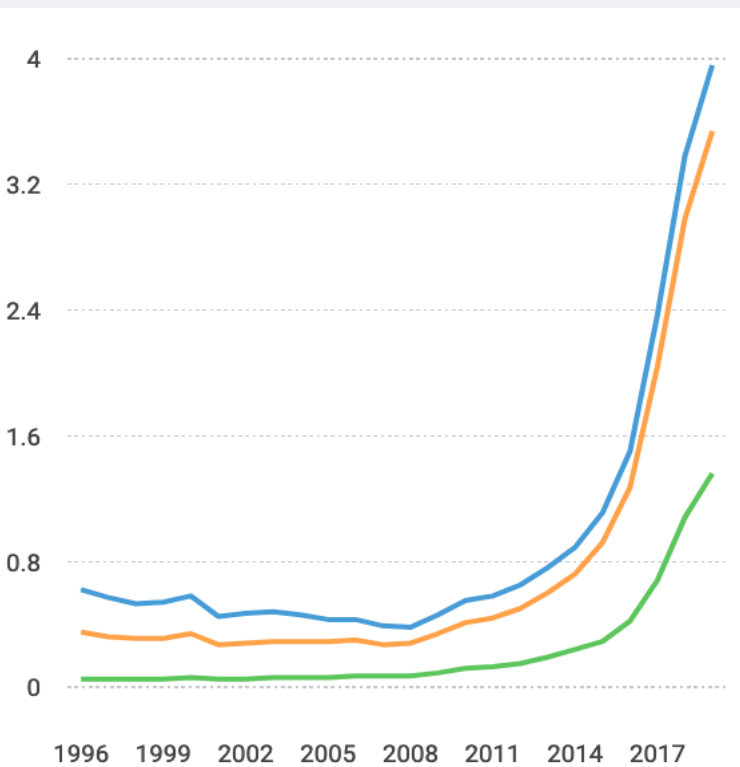


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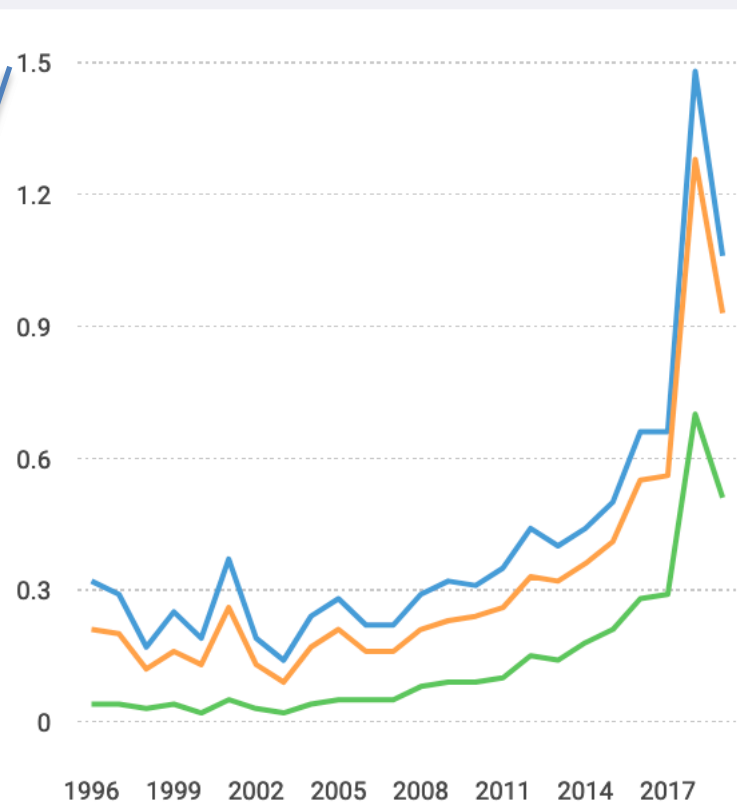
Output:

● % of the World ● % of BRIICS  
● % of Asiatic Region

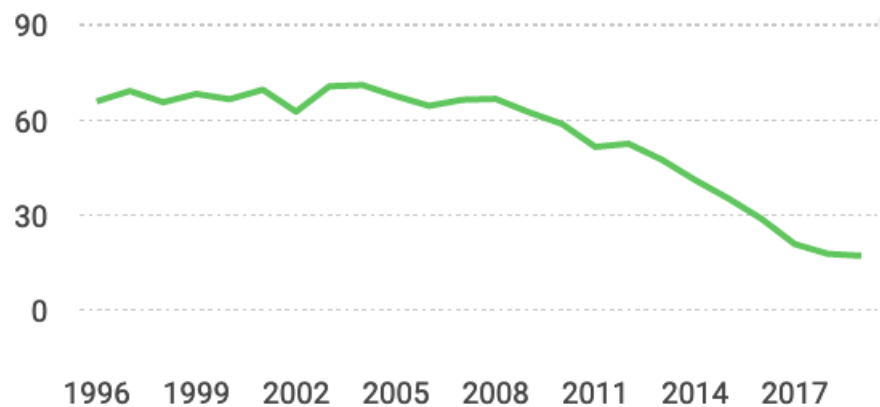


Output:

● % of the World ● % of BRIICS  
● % of Asiatic Region



● % International Collaboration

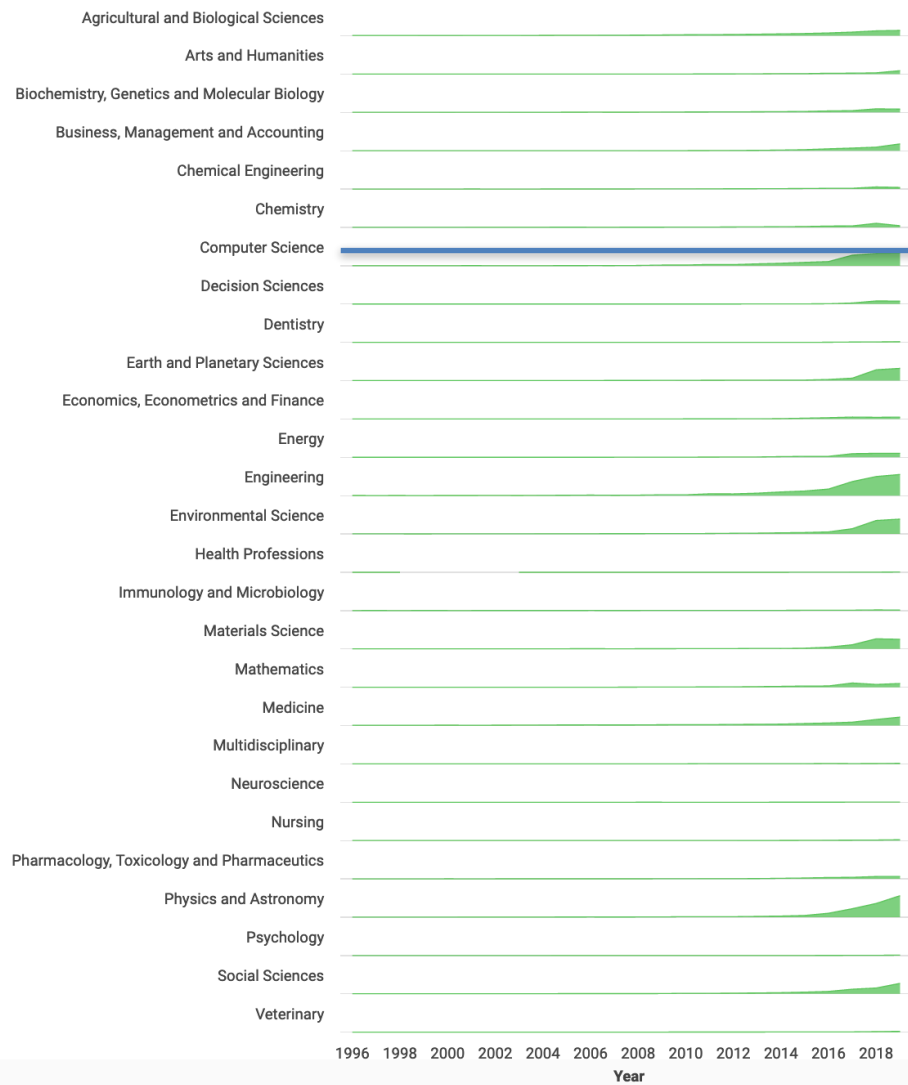


● % International Collaboration

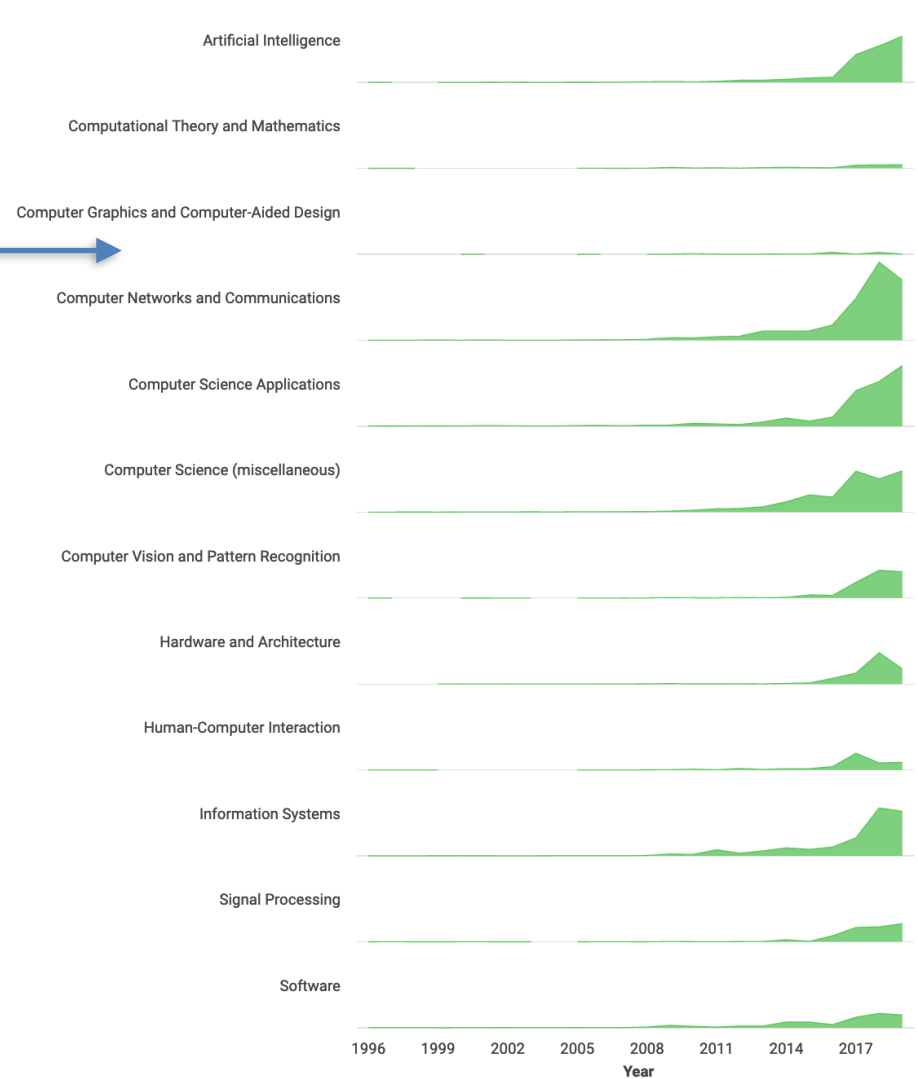


Computer sciences

## Documents by subject areas



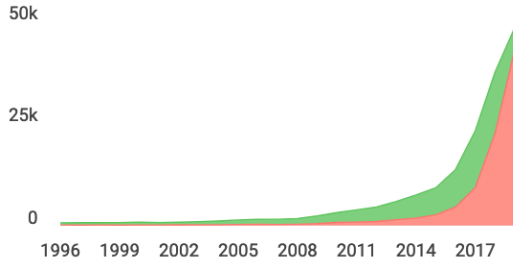
## Documents by subject categories



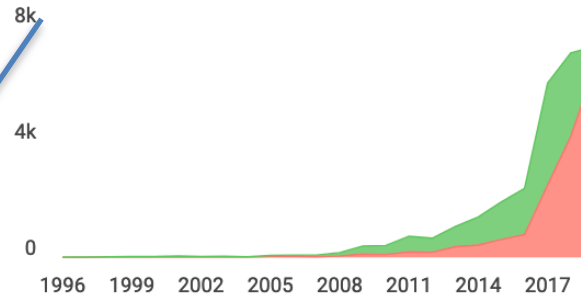


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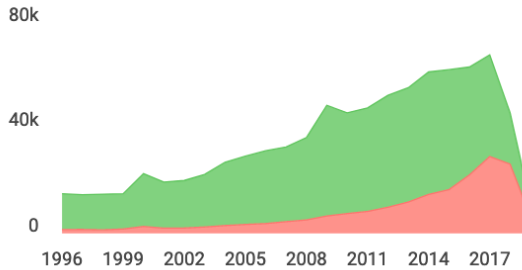
● Cited documents ● Uncited documents



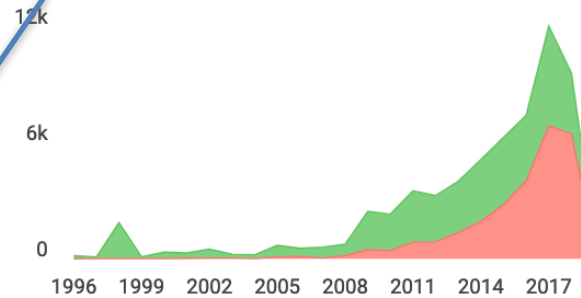
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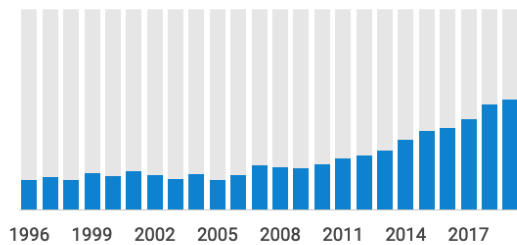
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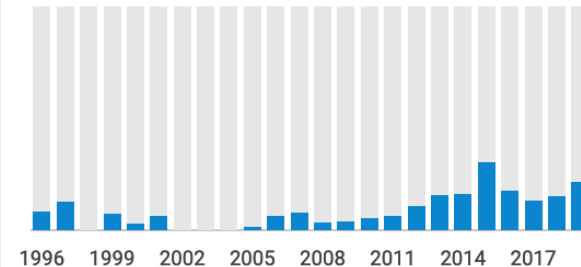
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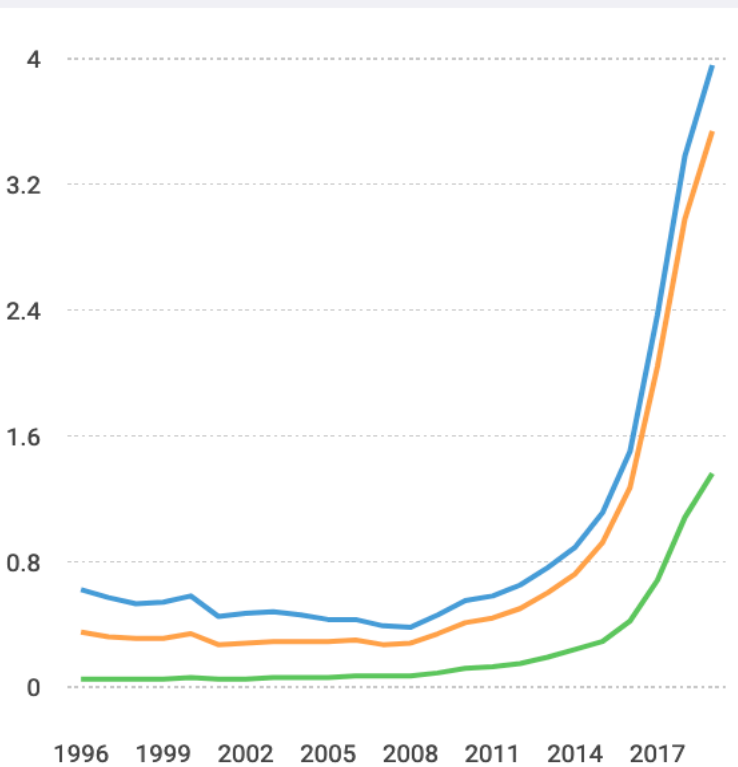


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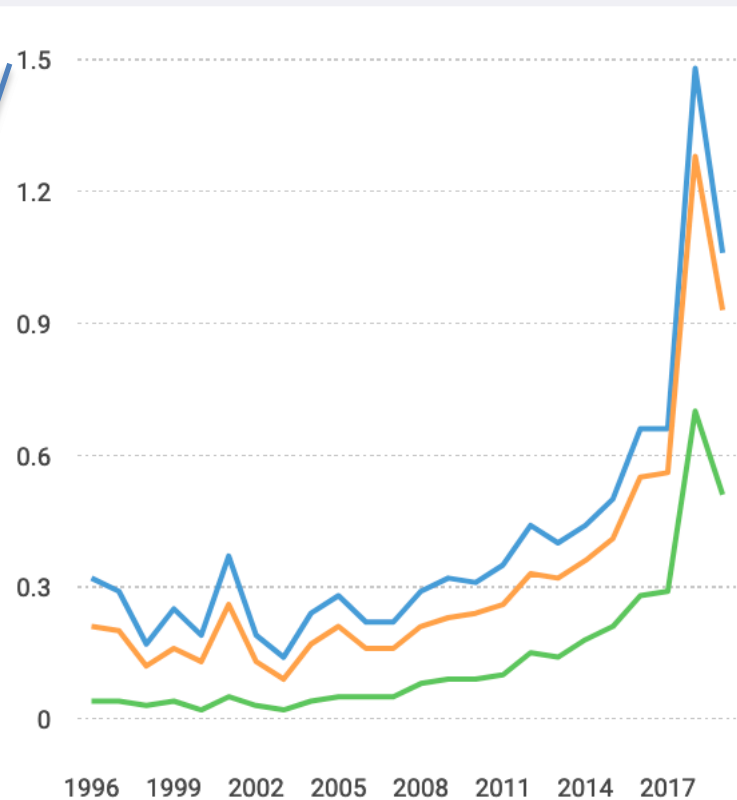
Output:

● % of the World ● % of BRIICS  
● % of Asiatic Region

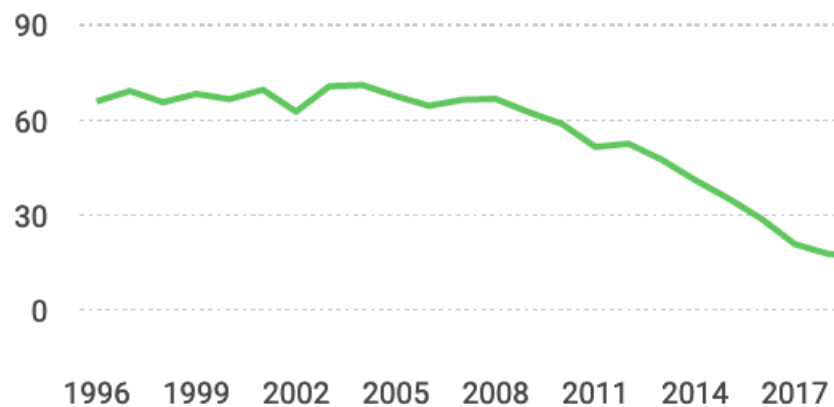


Output:

● % of the World ● % of BRIICS  
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● % International Collaboration

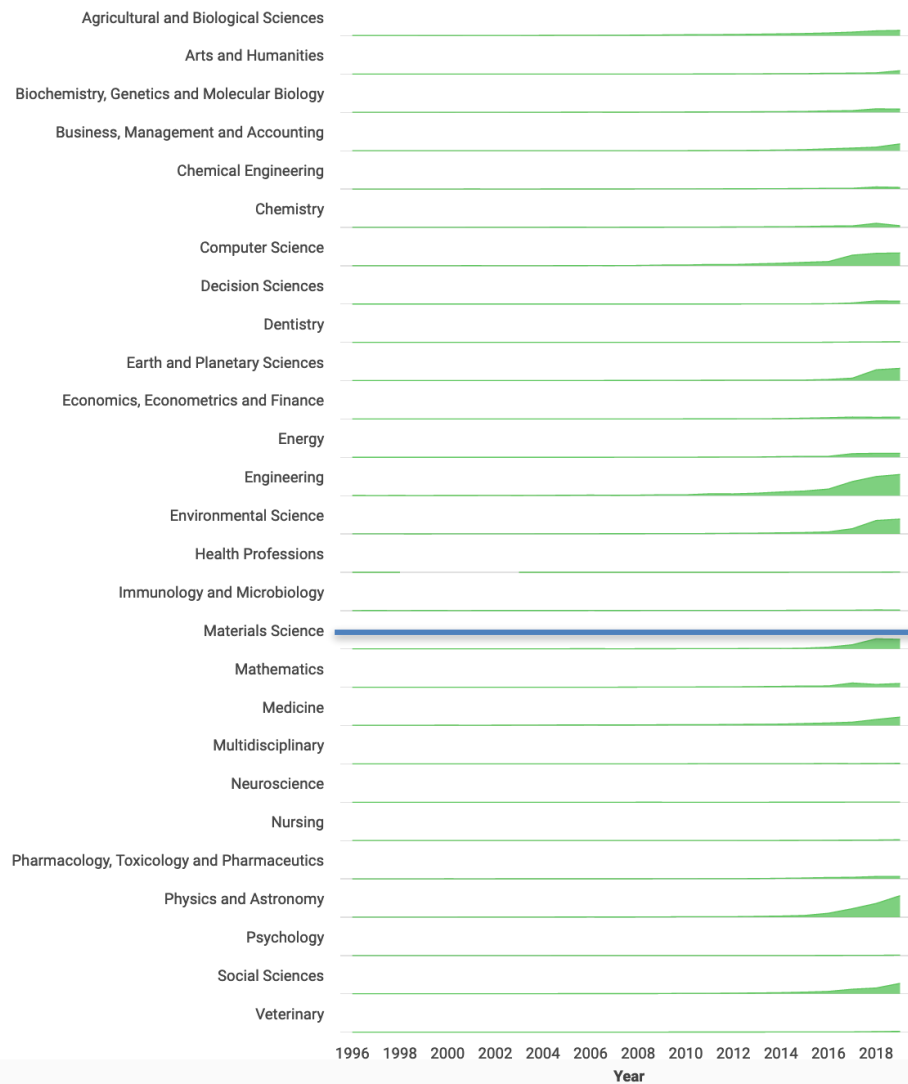


● % International Collaboration

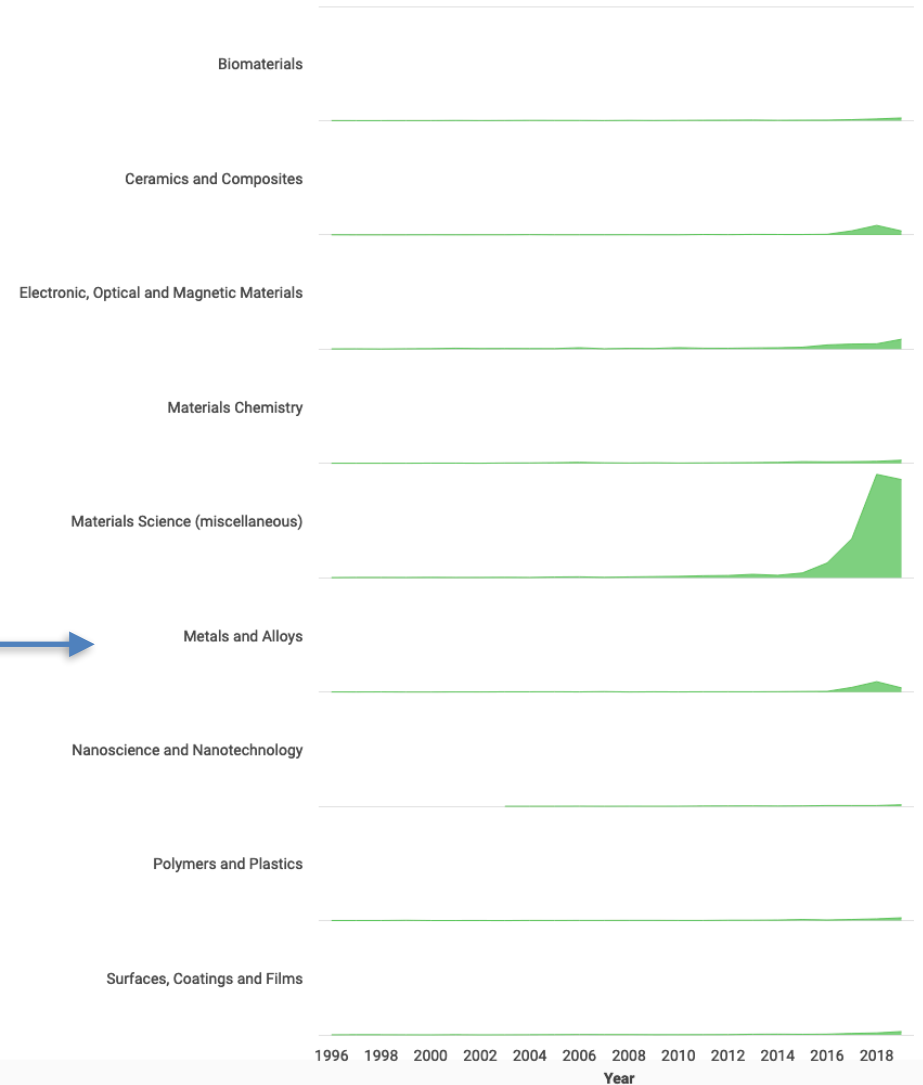


Material sciences

Documents by subject areas

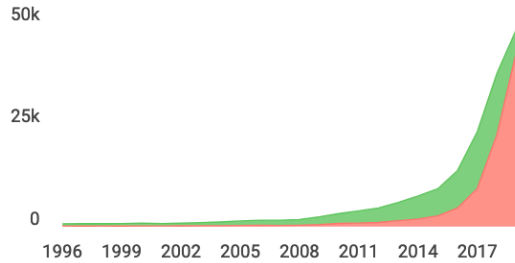


Documents by subject categories

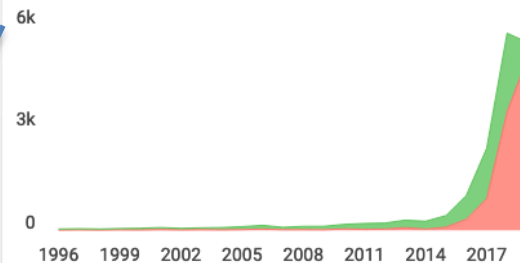


# Citations

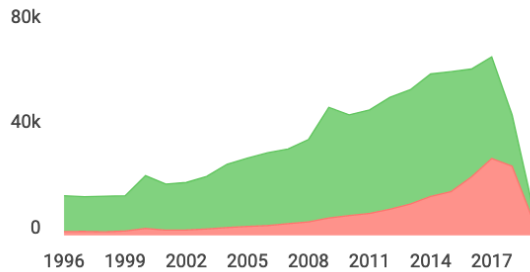
● Cited documents ● Uncited documents



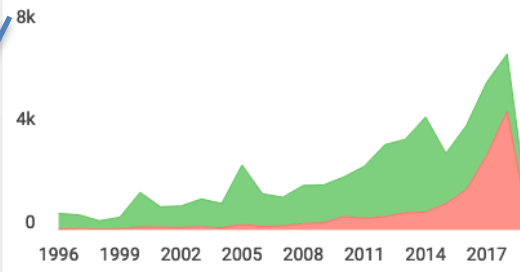
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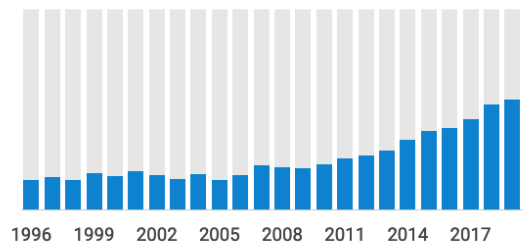
● External Cites ● Self-Cites



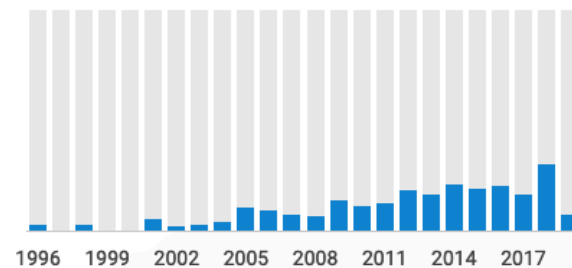
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% Open Access Output

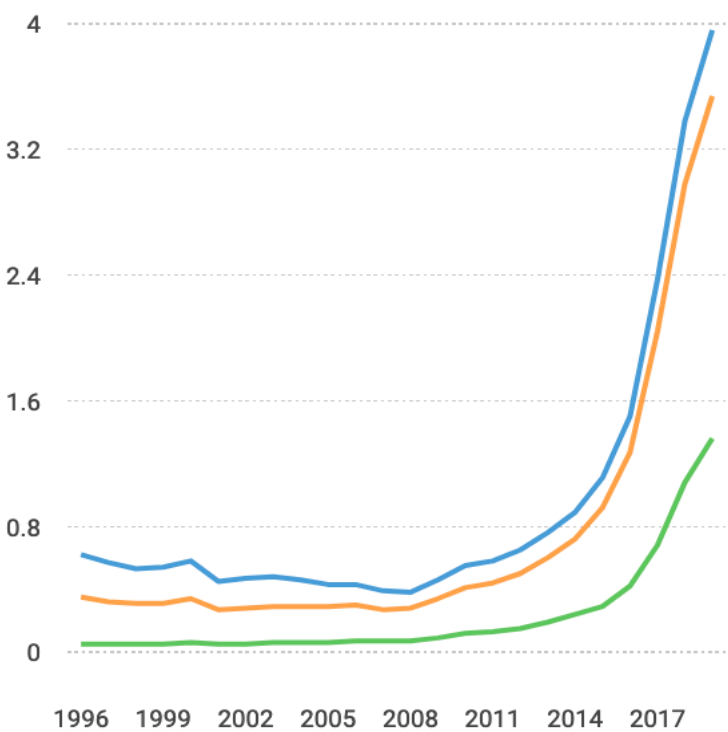


% Open Access Output



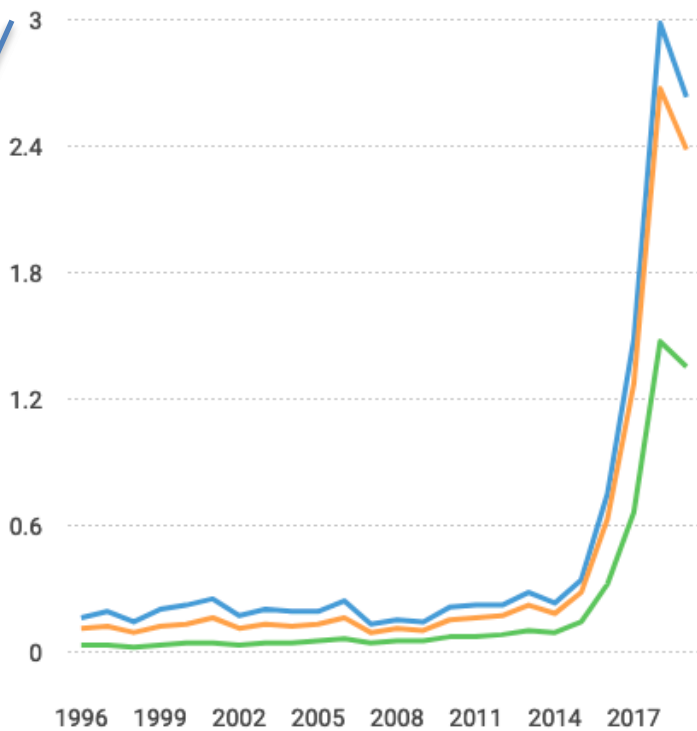
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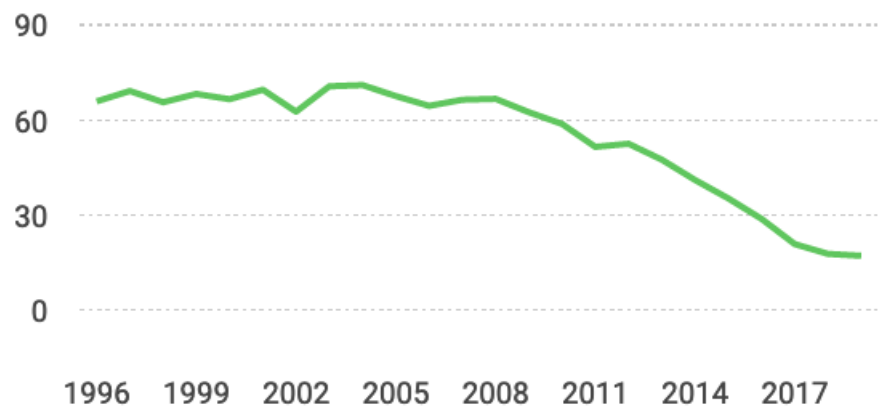


Output:

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● % International Collaboration



● % International Collaboration



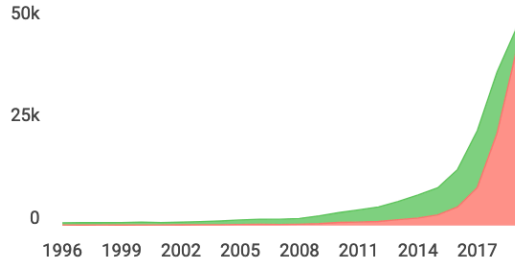


# Earth and planetary science

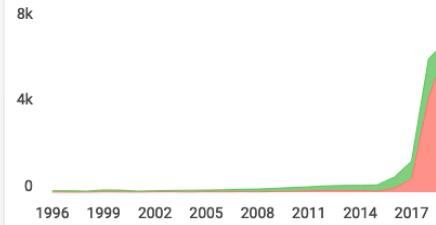
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# Citations

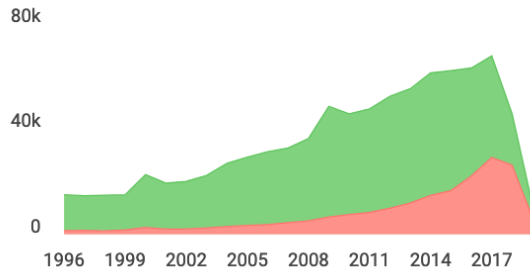
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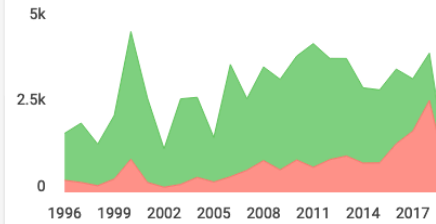
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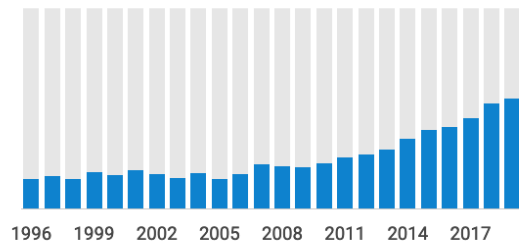
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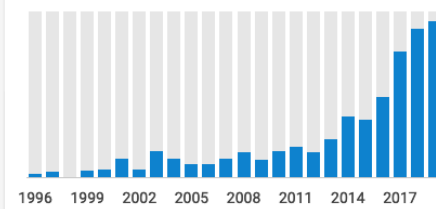
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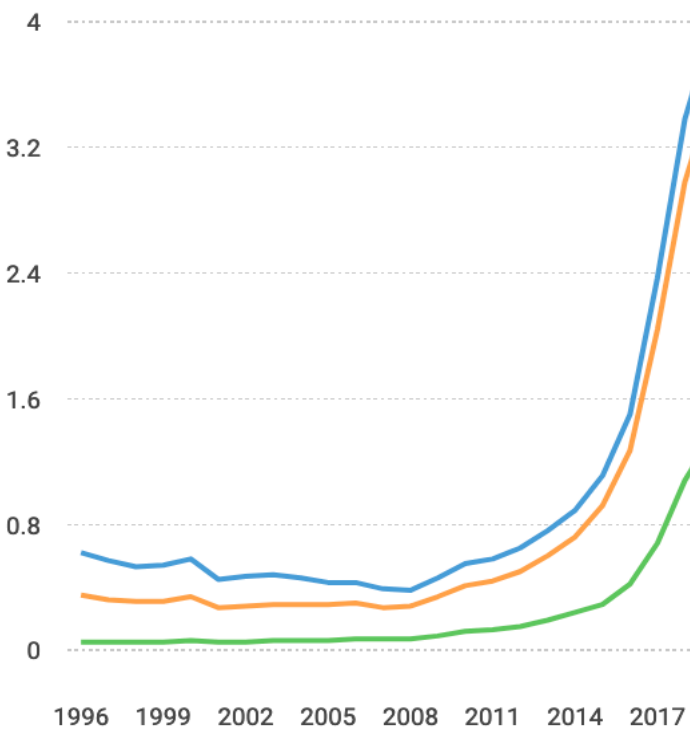


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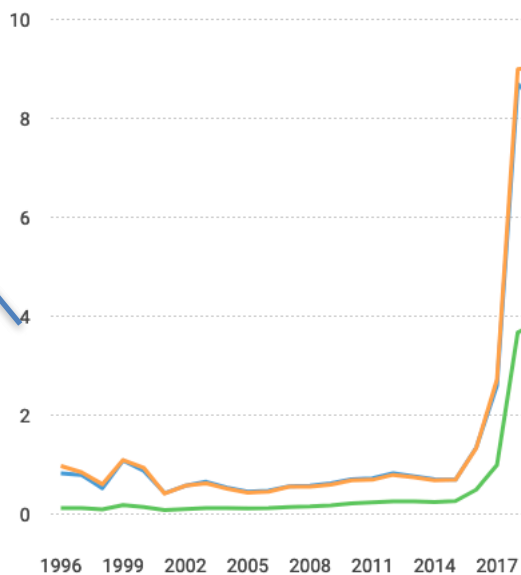
Output:

● % of the World ● % of BRIICS  
● % of Asiatic Region

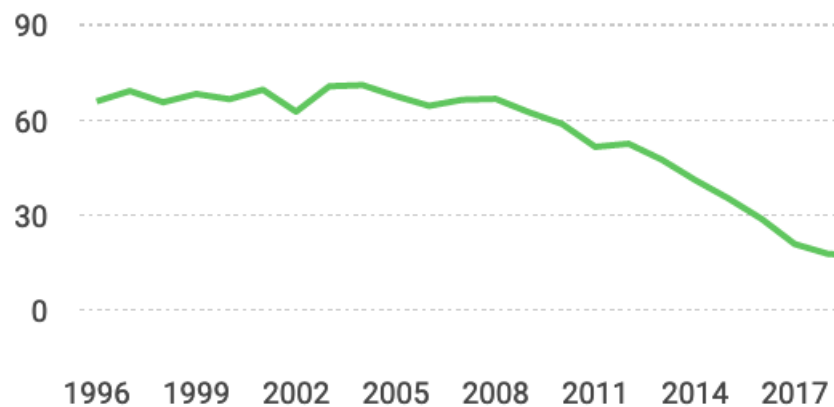


Output:

● % of the World ● % of BRIICS  
● % of Asiatic Region



● % International Collaboration



● % International Collaboration



Energy

[illegible]

Documents by subject categories

Energy Engineering and Power Technology

Energy (miscellaneous)

Fuel Technology

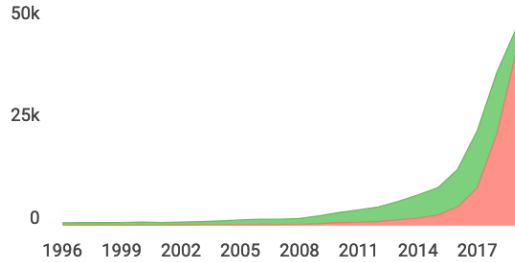
Nuclear Energy and Engineering

Renewable Energy, Sustainability and the Environment

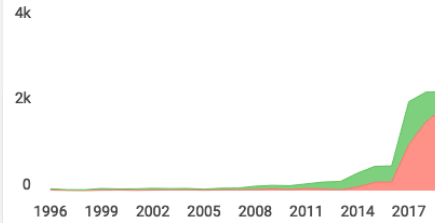
Year

# Citations

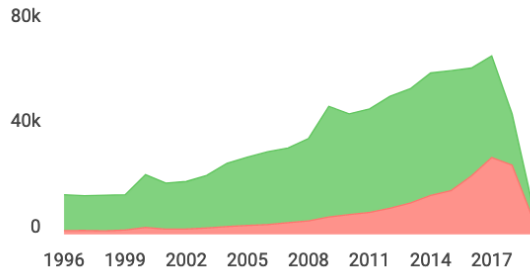
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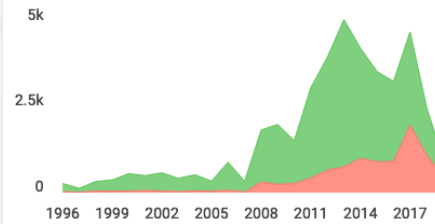
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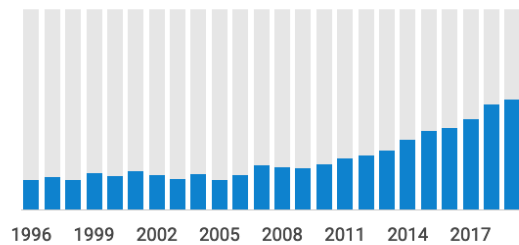
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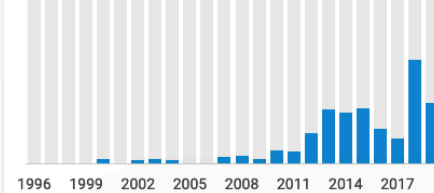
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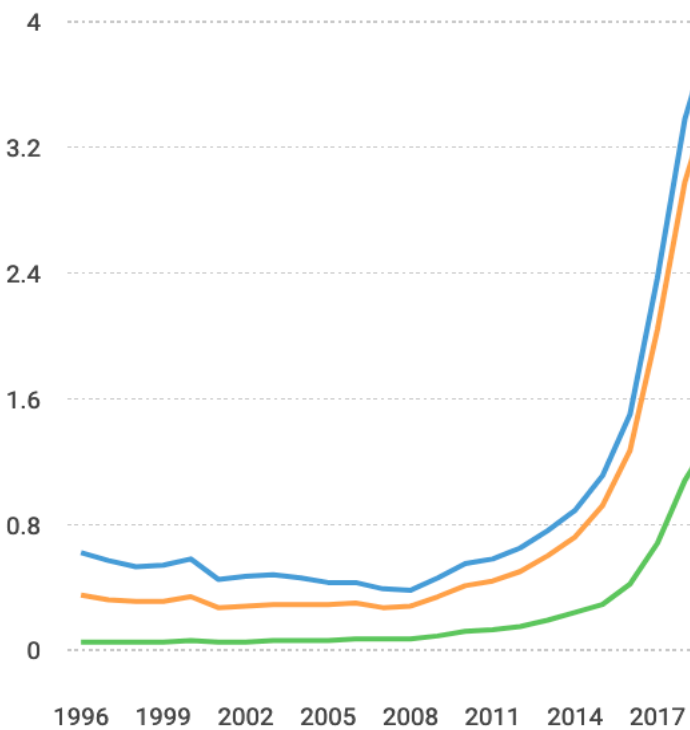
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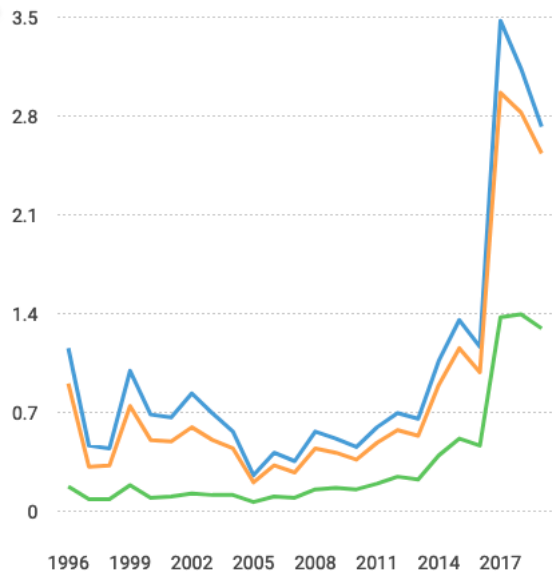
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● % of Asiatic Region



Output:

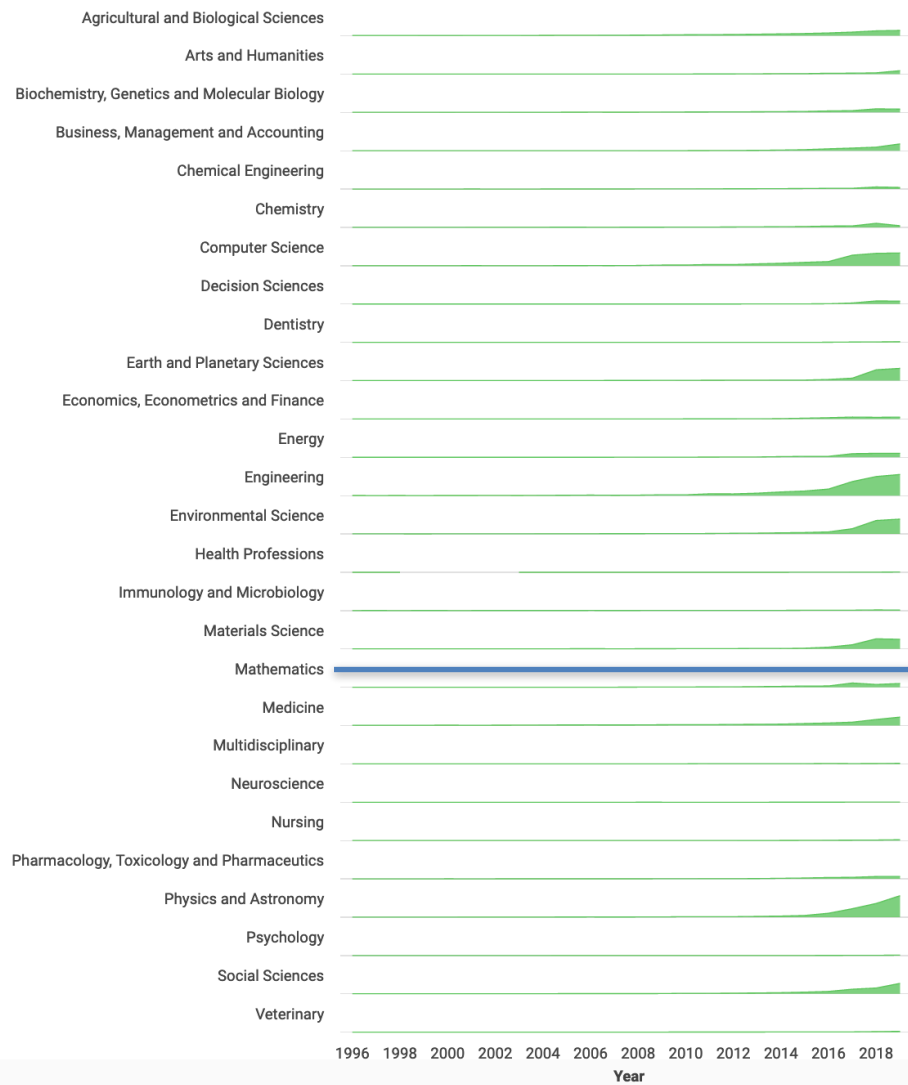
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● % of Asiatic Region



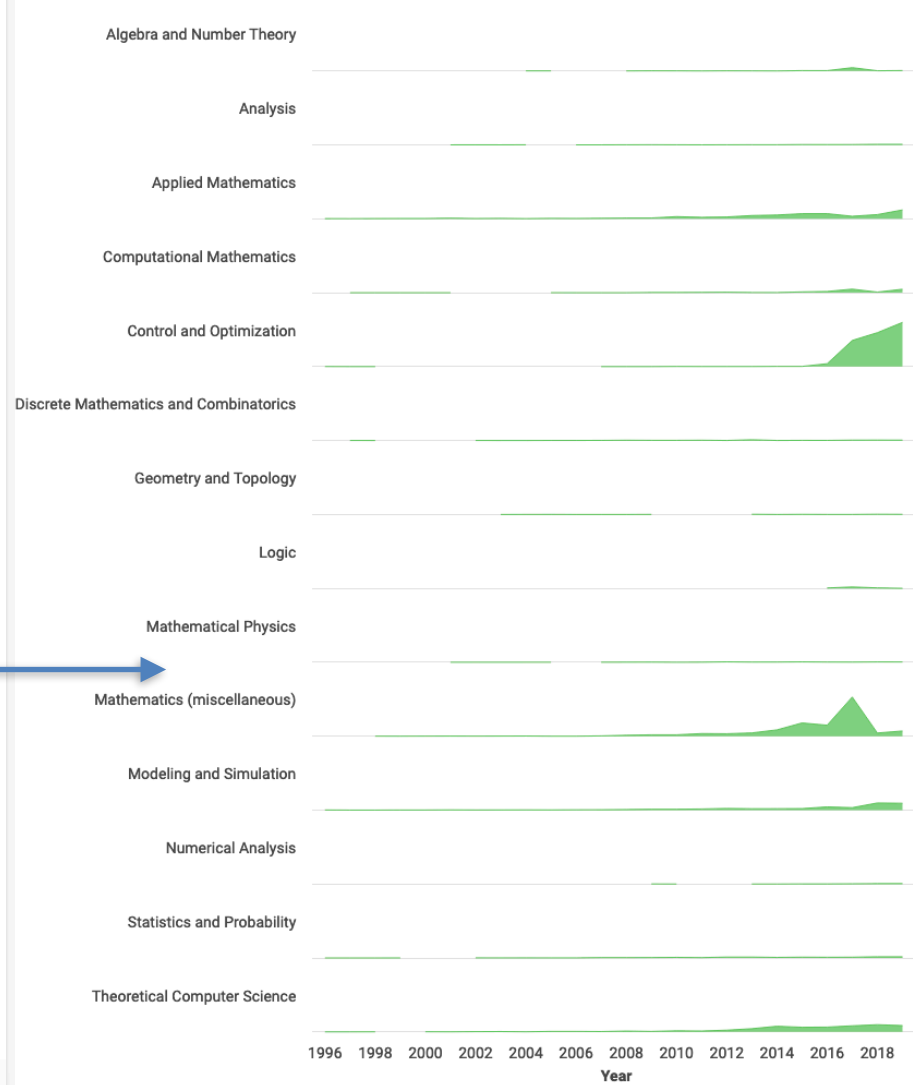


Mathematics

## Documents by subject areas

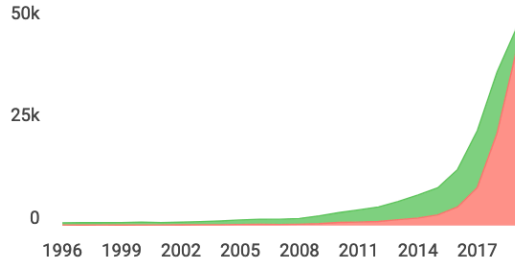


## Documents by subject categories

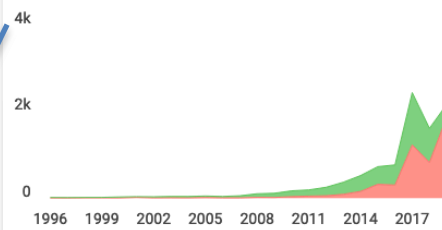


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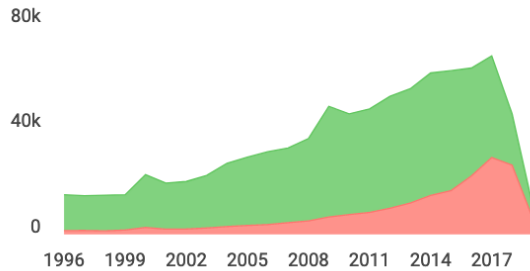
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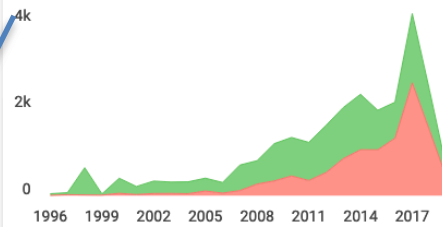
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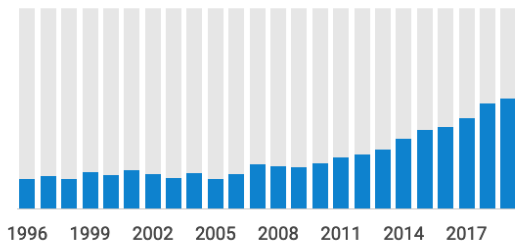
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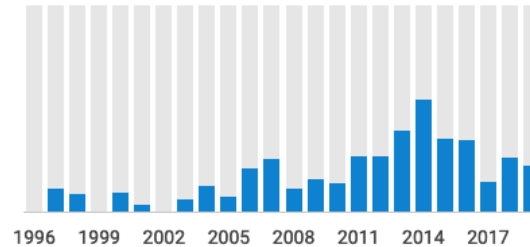
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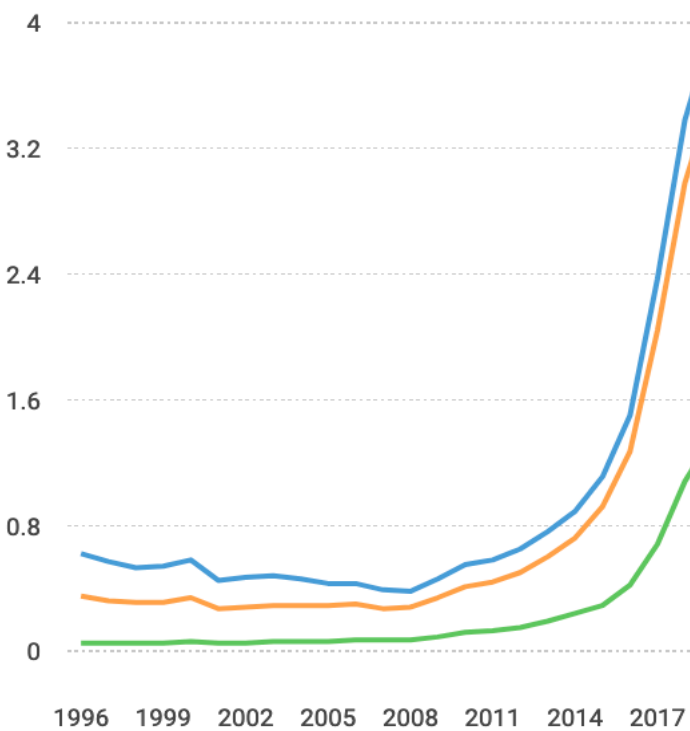


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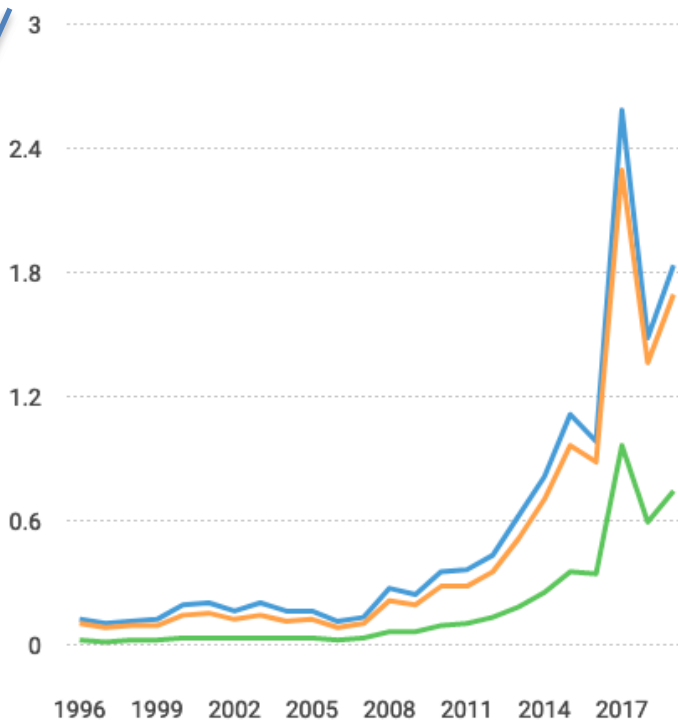
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● % of Asiatic Region



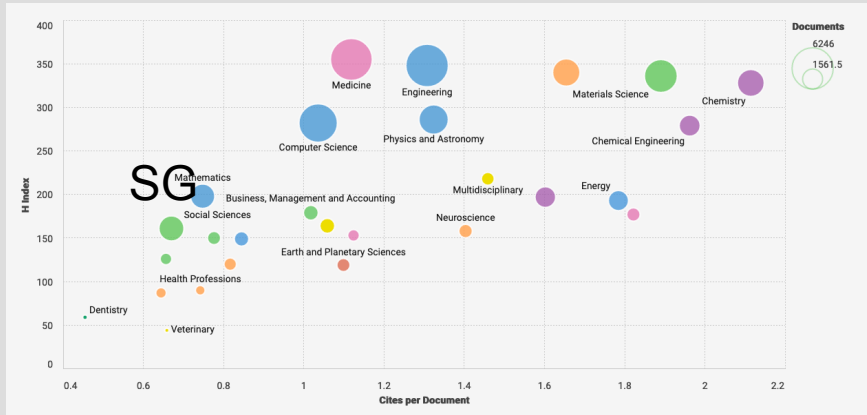
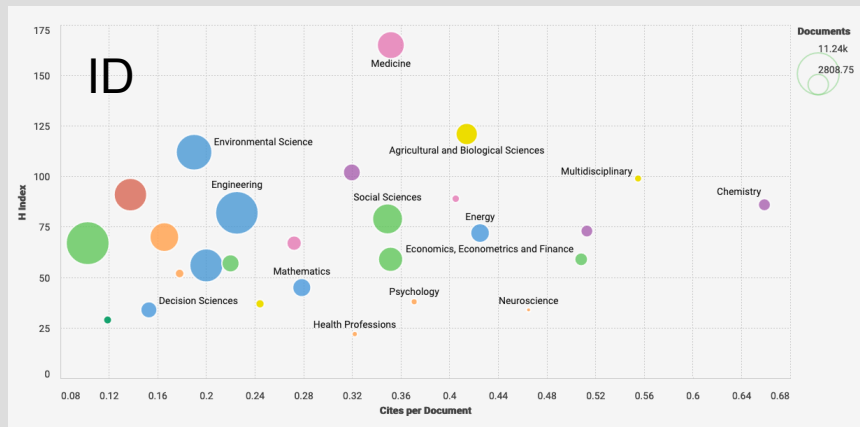
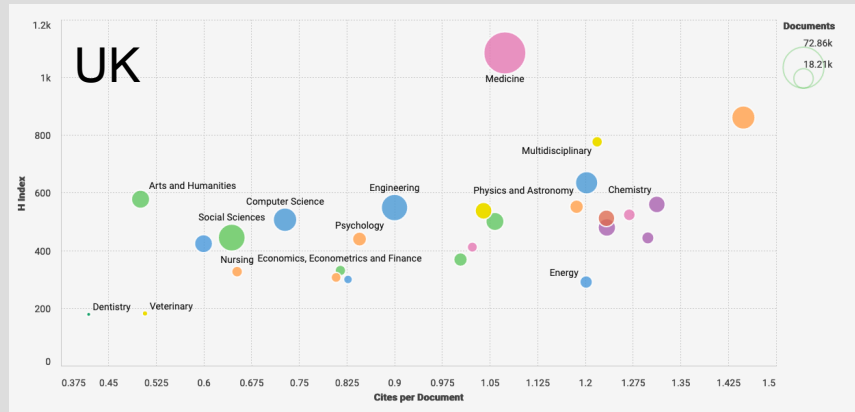
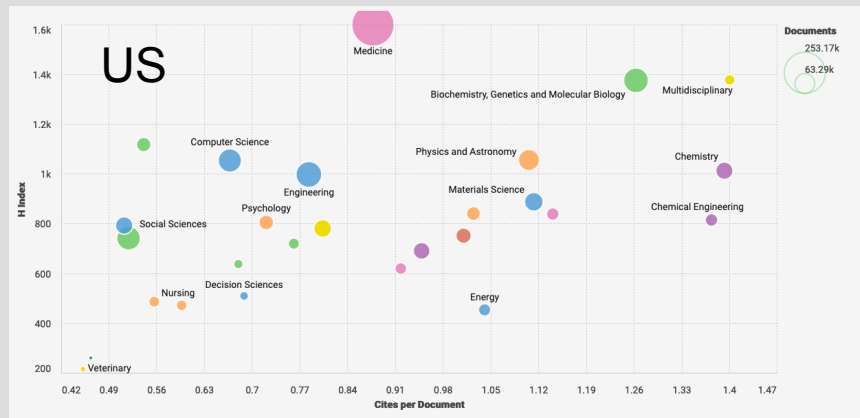
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H index and cites per doc

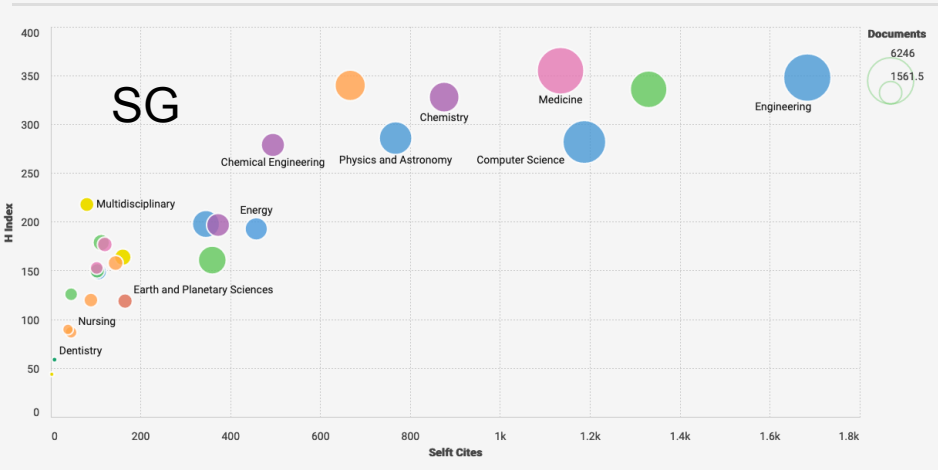
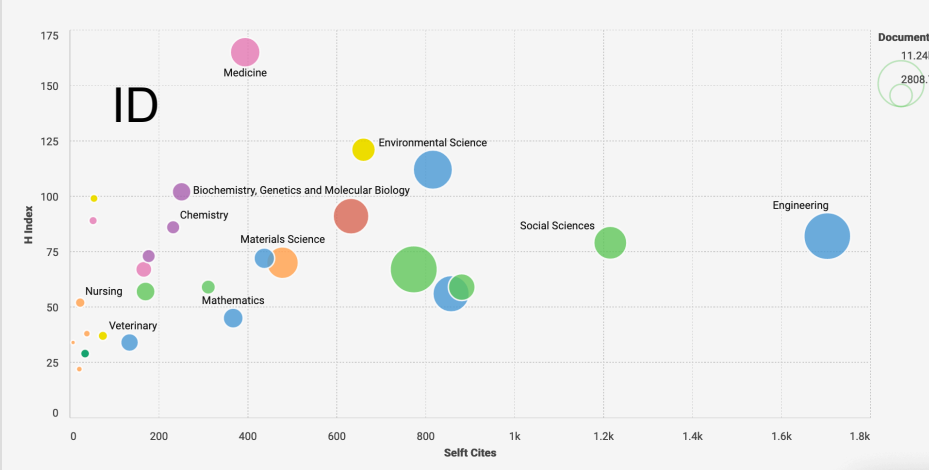
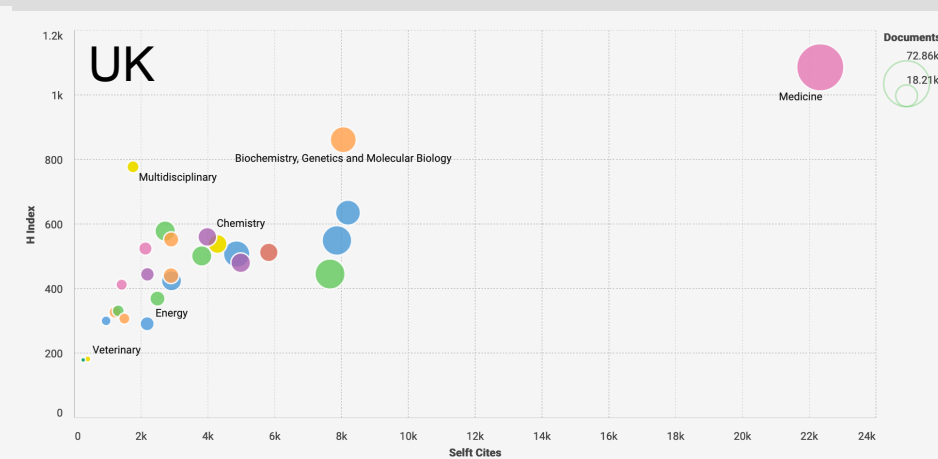
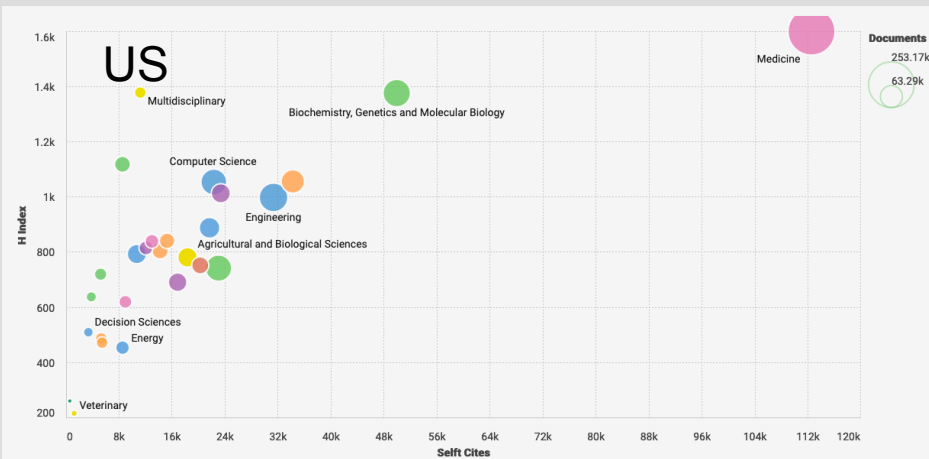
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H index and self cites

Scimagojr -> VizTools -> Bubble chart



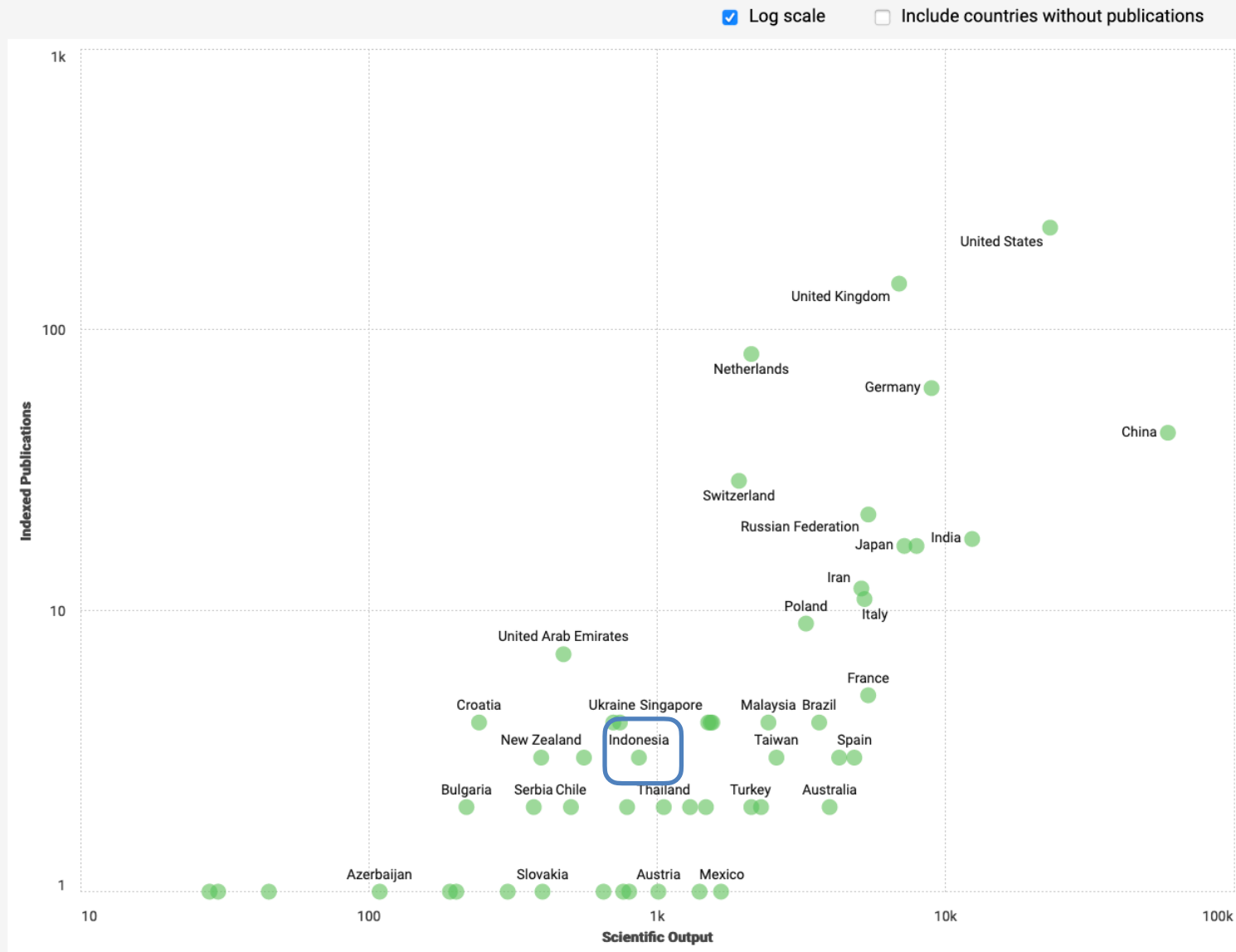
Indexed pubs vs Scientific output

Scimagojr -> VizTools -> Country graph > scatter plot

# Earth and planetary science



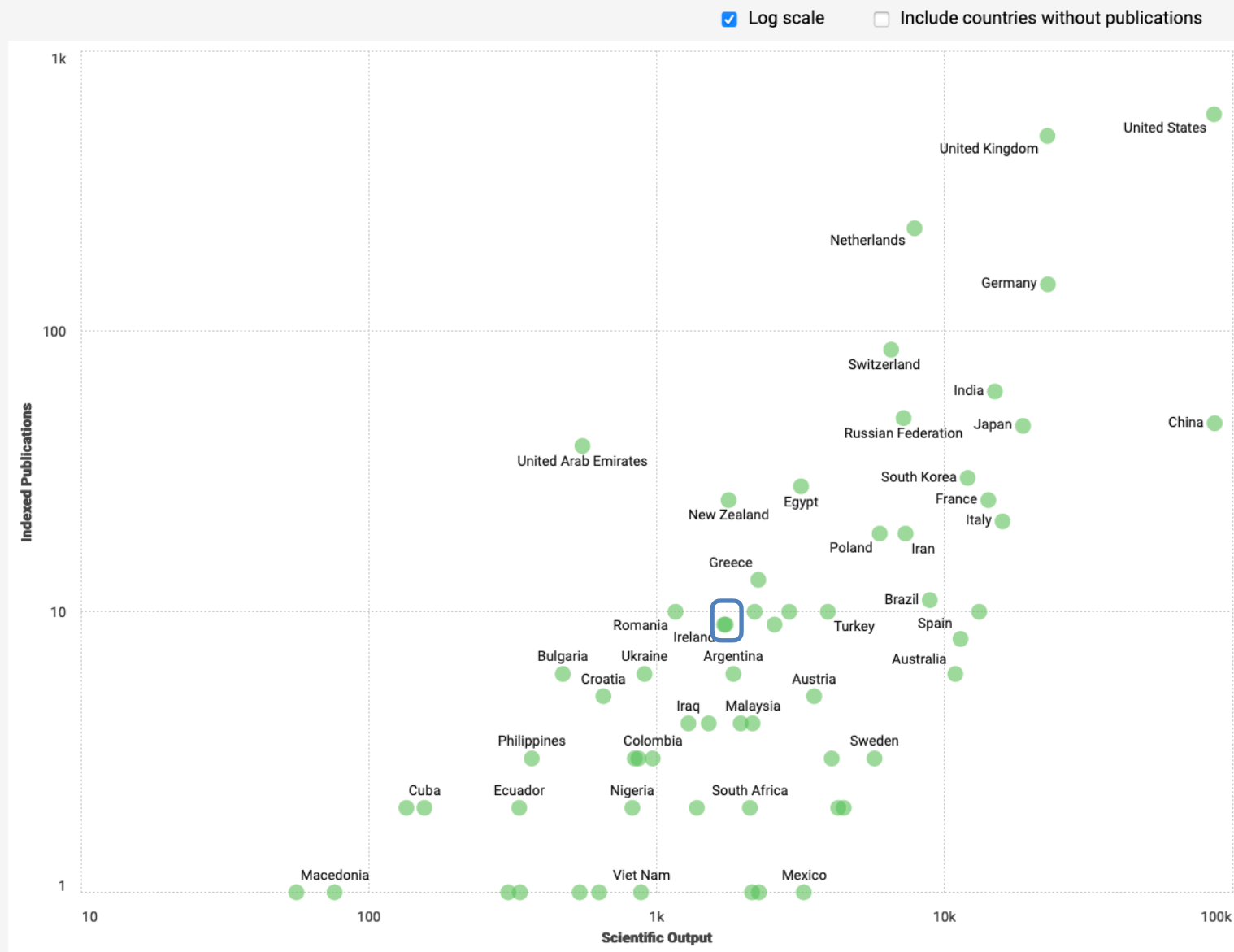
# Chemical engineering



# Agriculture and biological science



# Agriculture and biological science



# Energy

